

DOCUMENT RESUME

ED 161 173

EC 111 413

AUTHOR Baldwin, Alexinia Y., Ed.; And Others
TITLE Educational Planning for the Gifted. Overcoming Cultural, Geographic and Socioeconomic Barriers
INSTITUTION Council for Exceptional Children, Reston, Va.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Office for Gifted and Talented.
PUB DATE 78
NOTE 81p.
AVAILABLE FROM Council for Exceptional Children, Publication Sales Unit, 1920 Association Drive, Reston, Virginia 22091 (\$5.25)

EDRS PRICE MF-\$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Children; Community Involvement; *Cultural Disadvantage; Curriculum; *Economic Disadvantage; *Gifted; Minority Group Children; *School Planning; *Social Disadvantage; *Talent Identification

ABSTRACT

The book presents theoretical considerations and practical recommendations concerned with school planning for gifted children who might not be identified nor have an opportunity to develop their mental capacities because of external influences such as cultural diversity, socioeconomic status, or geographic isolation. Six different approaches to identification are presented. "Using the System of Multicultural Pluralistic Assessment (SOMPA) to Identify the Gifted Minority Child" (J. Mercer, J. Lewis) describes the extension of SOMPA to the identification of children whose potential has been masked by cultural differences between the home and school. "The Identification of Gifted Chicano Children" (E. Bernal, Jr.) discusses how Chicanos themselves view giftedness, along with three types of identification techniques. (Nondiscriminatory Testing Procedures to Assess Giftedness in Black, Chicano, Navajo, and Anglos" (M. Meeker) discussed the identification and separation of gifted abilities apart from a gifted score, and the identification of gifted level cognitive abilities in disadvantaged minority children. "Finding the Ablest Mathematical Reasoners in a Specifically Designated Group" (J. Stanley) presents a model that can be applied to almost any special group. "Ways of Discovering Gifted Black Children" (E. Torrance) discusses tests that lack minority group bias and those that tap cultural strengths. "The Baldwin Identification Matrix" (A. Baldwin) presents a format to more equitably assign students to gifted programs. In "Curriculum and Methods--What is the Difference" (A. Baldwin), the definition and components of a quality program for gifted children with unique needs are discussed. "Within the Community and Its Schools" (G. Gear) explores factors that affect the success of programs for gifted children with unique needs, "Summary, Analysis, and Future Directions" (R. Fuchigami) concludes the booklet. (DLS)

ED1611173

EDUCATIONAL PLANNING FOR THE GIFTED

Overcoming Cultural, Geographic, and Socioeconomic Barriers

Edited by

ALEXINIA Y. BALDWIN

GAYLE HAYWOOD GEAR

LEONARD J. LUCITO

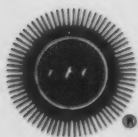
U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.



EC 111 413

THE COUNCIL FOR EXCEPTIONAL CHILDREN



Published in 1978 by The Council for Exceptional Children, 1920
Association Drive, Reston, Virginia 22091

Library of Congress Number 78-60442

The work performed herein was done pursuant to a contract from the Office of Gifted and Talented, US Office of Education, Department of Health, Education, and Welfare Contract No. 300-76-0530. The opinions expressed herein, however, do not necessarily reflect the position or policy of the US Office of Education, and no official endorsement by the US Office of Education should be inferred.

Printed in the United States of America

Contents

Contributors	v
Preface	vii
1. Introduction	1
<i>Alexinia Y. Baldwin</i>	
2. Approaches to Identification	7
Using the System of Multicultural Pluralistic Assessment (SOMPA) to Identify the Gifted Minority Child	7
<i>Jane R. Mercer and June F. Lewis</i>	
The Identification of Gifted Chicano Children	14
<i>Ernest M. Bernal, Jr.</i>	
Nondiscriminatory Testing Procedures to Assess Giftedness in Black, Chicano, Navajo, and Anglo Children	17
<i>Mary Meeker</i>	
Finding the Ablest Mathematical Reasoners in a Specifically Designated Group	26
<i>Julian C. Stanley</i>	
Ways of Discovering Gifted Black Children	29
<i>E. Paul Torrance</i>	
The Baldwin Identification Matrix	33
<i>Alexinia Y. Baldwin</i>	
3. Curriculum and Methods—What Is the Difference?	37
<i>Alexinia Y. Baldwin</i>	
4. Within the Community and Its Schools	50
<i>Gayle Haywood Gear</i>	
5. Summary, Analysis, and Future Directions	65
<i>Robert Y. Fuchigami</i>	

Contributors

Alexinia Y. Baldwin is Assistant Professor, Department of Educational Policies, Programs, and Institutions, at the State University of New York, Albany.

Ernest M. Bernal, Jr. is Associate Professor, Division of Bicultural-Bilingual Studies, College of Multidisciplinary Studies, at the University of Texas, San Antonio.

Robert Y. Fuchigami is Special Assistant to the Executive Director, Minority Concerns and Development, at The Council for Exceptional Children, Reston, Virginia. He is currently on leave from Sonoma State College, California, as a Professor of Education.

Gayle H. Gear is Associate Professor, Department of Special Education, at the University of Alabama, Birmingham.

June F. Lewis is Research Director, PRIME Projects, at the University of California, Riverside.

Leonard J. Lucito is Professor, Department of Special Education, at Georgia State University, Atlanta.

Mary Meeker is Professor, Department of Educational Psychology, at California State University at Northridge, and President of the SOI Institute in El Segundo, California.

Jane R. Mercer is Professor, Department of Sociology, at the University of California, Riverside.

Julian C. Stanley is Professor of Psychology and Director of the Study of Mathematically Precocious Youth (SMPY) at The Johns Hopkins University, Baltimore, Maryland.

E. Paul Torrance is Chairman, Department of Educational Psychology, Measurement, and Research, at the University of Georgia, Athens.

Preface

□ Identification of the gifted and talented among our students has concerned educators for decades. When critical social and economic elements of the environment enter the scene, the challenge becomes even greater.

Educational Planning for the Gifted—Overcoming Cultural, Geographic, and Socioeconomic Barriers was written for teachers, administrators, and school planners who believe in education's commitment to seek out and develop the potential of *all* gifted and talented children and youth. In the Introduction, Dr. Alexinia Baldwin describes the approach of the volume, which does not focus on the specific ethnic minorities, but looks at the problem from barriers created by cultural diversity, socioeconomic deprivation, and geographic isolation across ethnic groups.

Chapter 2 contains a collection of six papers prepared by individuals whose professional contributions to identifying the gifted and talented are widely recognized. Each was invited to prepare a brief statement highlighting the key elements of his or her approach to identification. Space did not permit the development of rationale and the reporting of supporting data. Those with special interest in identification procedures are encouraged to read these authors' more detailed reports.

Teachers, particularly, should find Chapter 3, "Curriculum and Methods—What Is the Difference?" of interest and assistance. Here Baldwin offers guidelines and suggestions in how to create the instructional environment for gifted children with unique needs. For the administrator and planner, Dr. Gayle Gear provides, in Chapter 4, guidelines for getting a program started in a community. She looks at the elements within a community and the elements within the schools that one must consider in order to establish a program. Examples of successful efforts in communities illustrate how programs can come about. A discussion of "within the schools" identifies key individuals and the roles they play.

In conclusion, Dr. Robert Fuchigami reviews the preceding material, provides a critical analysis from his own perspective, and identifies continuing issues and unresolved problems.

The editors and authors acknowledge that this monograph does not provide a definitive solution to the problem. It is hoped that it will answer many questions and offer approaches to a most important end.

June B. Jordan, CEC

1. Introduction

Alexinia Y. Baldwin

□ The theoretical considerations and practical recommendations of this volume are concerned with school planning for the gifted child with unique educational needs. These considerations emerged after acceptance of some basic assumptions. First, not all children who would be classified as suggested in the monograph would require special consideration of their unique needs because they have had other support systems that have helped them overcome the external handicaps. Second, the definitions given are concerned with causality as a barrier to recognition and proper handling.

Hence, this population is made up of those gifted individuals who might not be identified nor have an opportunity to develop their mental capacities because of external influences such as cultural diversity, socioeconomic status, or geographic isolation. These influences or variables are defined in this volume as follows:

Cultural diversity (CD) is a condition of racial, ethnic, language, or physical differences from a dominant culture.

Socioeconomic deprivation (S/ED) is a condition of legal or *de facto* denial of social interaction combined with substandard housing and jobs.

Geographic isolation (GI) is the condition of being geographically located away from the mainstream of society.

Some examples of populations affected most perversely by one or more of these variables are the American Blacks, Puerto Ricans, American Indians, Asians, Mountain Dwellers, and Mexican Americans. These examples should not represent a closed set because as Smilansky & Nero (1975) explain it, each society passes through a process of change called modernization where there is a maturation of groups as they work toward social equilibrium within the society. The specific groups mentioned are at a maturational crisis in a period of rapid change. Due to the lack of educational and social support, skin pigmentation, and physical or social differences, these groups have found the process of maturation difficult. Increased educational and social support of all members of

these groups will increase the speed of maturation, but it is especially crucial that there be support for its gifted individuals.

The term "the gifted child with unique needs," when used as a classification guide, joins the growing list of misnomers for a phenomenon that exists in all countries but particularly in the United States. The members of this group have been referred to as "the disadvantaged," "the culturally disadvantaged," "the culturally deprived," "the socioeconomically deprived," and "the minority," to name a few.

When the term *disadvantaged* is used, the question immediately arises—"Who are the disadvantaged, the child in the inner city or the isolated child in the suburbs?" Disadvantaged is a relative term. *Culturally disadvantaged/deprived* implies to many that a particular culture with its traditions is somehow less important, thus giving credence to an attitude of inferiority for some cultures. The term *minority* seems at first glance to serve the designated purpose but it too fails to communicate. It is used so often in various contexts that it leaves too many interpretations for the reader. Does the "minority opinion" refer to a special group of people? Does it refer to the Anglo Saxon male who used it to refer to reversed discrimination? Does it refer to Blacks or other ethnic groups? Each of these labels has failed to communicate any more than a partial explanation for the causes of manifested behavior. Neither have they explained the variability in the educational needs of children who are placed in these categories.

This lack of communication has in large part interfered with the understanding, recognition, and development of outstanding abilities. It has also posed many problems in the development of philosophical positions, identification processes, and program planning activities.

In developing a philosophical position, the planner must ask a difficult question, "Does my philosophy regarding the essence of education of the gifted vary from group to group?" or "How do I define giftedness and plan for educational extension or development of giftedness?" The broader concept of giftedness, as listed in the Marland (1971) report to Congress, allows consideration of the gifted and talented to be on the basis of excellence or outstanding ability in one or a combination of the following areas: general academic abilities, special academic ability (math, science, etc.), creative ability (visual and performing arts, creative problem solving ability), psychosocial ability (leadership), and kinesthetic (psychomotor) ability.

The planner(s)' acceptance of this definition, along with an acceptance of the idea that equal education means an equal opportunity to develop one's capacities to the fullest, sets the stage for developing or accepting certain goals for individuals of this population. In this author's opinion the primary goals for these gifted children do not differ from those of gifted children of any population. However, the delivery system with its secondary or tertiary goals may vary from group to group or from child to child.

An adequate identification process has been one of the greatest barriers to planning appropriately for gifted individuals with unique needs. The stereotypical perception of ability that stems from the traditional practice of looking only at the functioning or performance level of the individual is still a factor in identification. This practice often holds sacred those studies that propose a hereditary factor in differences of IQ scores of certain populations. The point counterpoint discussion in the literature of this perception (Baldwin, 1977; Ebel, 1975; Rivers et al., 1975; Stallings, 1971; Stanley, 1970) is related to the interaction of three important elements, as shown in Figure 1—the innate capacity of the individual, environmental influences, and observable functioning or performance levels.

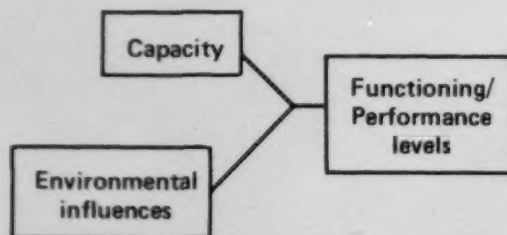


Figure 1. Interaction of the innate capacity of the individual, environmental influences, and observable functioning or performance levels.

Capacity here refers to the inherited and/or physical capacity; *environmental influences* refers to the stimulus, experiential trajectory,* and attitudes; and *performance levels* refers to the evidenced abilities that often vary from what is expected of the norm. Hence, techniques for identifying gifted children who fall under the categories of cultural diversity, geographic isolation, or socioeconomic deprivation should take into consideration the environmental influences and experiential trajectories that have, in concert with capacity, influenced the present functioning level. On the other hand, it is equally important that program planning affect the environmental situations in such a way as to heighten the functioning performance levels. As Smilansky and Nero (1975) stated, "We should not accept the group's behavioral manifestations as indications of no criteria for predicting its future capabilities; instead, we must try to realize the group's potentialities for growth and development" (p. 278).

*Jane Mercer explains that students included in groupings listed in this paper are put in trajectories that lead to low tracking and closed, deadend experiences followed by limited success in life. She advocates experiences that would put children into new trajectories thus opening new vistas.

The need for proper identification processes reinforces the argument for a more precise definition or designation of the population with which this volume deals. In preceding paragraphs it was indicated that the three variables used in defining the gifted child with unique needs are cultural diversity, socioeconomic deprivation, and geographic isolation. However, these groups overlap into interrelations as illustrated in Figure 2. For example, Carmen, a Puerto Rican student, who is culturally diverse is also socioeconomically deprived, so his problems are different from José who has a language difference along with his cultural diversity but whose parents are not economically destitute. Tommy lives on a farm, is poor, and is from a different culture. Plans for identifying and planning for individuals in his situation should include consideration of all three of the variables. Lon is an Asian student who has just come to this country to escape the political problems of his native land; he cannot speak English but his family is able to live moderately well. Therefore, he falls in the category of cultural diversity. Elaine is a Black student whose parents have just moved back to America after serving the government in Europe and Africa. She is culturally diverse but other support systems have diminished the effects of this variable on her functioning level. She would not be the primary concern of this programming.

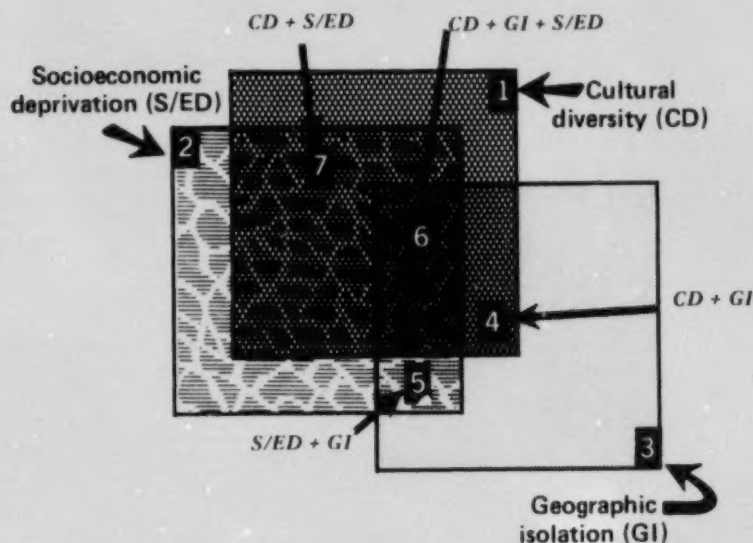


Figure 2. Interrelations between the three variables used to define the gifted child with unique needs.

As researchers and analysts, we are still in the prehistoric era of developing instruments for identifying without prejudice the manifest and latent capability of a human being. Various checklists and standardized tests, when used as indicators of ability, have increased the number of children recognized. I must add, however, that we must proceed with haste yet with caution in accepting proposed schemes and answers to the problem. Identification plays an important role in designating the abilities that are unique, providing an analysis of the talent ability profile, providing an analysis of the preferred learning mode, and providing some assessment of the relationship of indexes of giftedness to those characteristics considered important to a specialized population of individuals. These functions are important in developing programs for all gifted individuals, especially members of this population.

In conclusion, a program developed for gifted individuals who might not be identified nor have an opportunity to develop their mental capacities for reasons of external influences such as cultural diversity, socioeconomic status, or geographic isolation should contain first, alternative identification techniques and second, a program that involves a delivery system made up of the curriculum, the teaching strategies, and the organizational environment fashioned to meet the unique needs of these individuals.

REFERENCES

- Ebel, R. L. Educational tests: Valid?, biased?, useful? *Pbi Delta Kappan*, October 1975, 82-88.
- Marland, S. P., Jr. *Education of the gifted and talented*, Vol. 1. Report to the Congress of the United States by the US Commissioner of Education, 1971.
- Rivers, W. L., Mitchell, H., & Williams, W. IQ labels a liability: Effects on the black child. *Journal of Afro-American Issues*, Winter 1975, 63-76.
- Smilansky, M., & Nero, D. A longitudinal study of the gifted disadvantaged. *Educational Forum*, March 1975.
- Stallings, C. Gifted Disadvantaged children. *National Leadership Institute Teacher Education/Early Childhood*. University of Connecticut Technical Paper, March 1972.
- Stanley, J. Predicting college success of educationally disadvantaged. *Science Magazine*, February 1971, 640-647.

2. Approaches to Identification

Using the System of Multicultural Pluralistic Assessment (SOMPA) to Identify the Gifted Minority Child

Jane R. Mercer and June F. Lewis

□ Although the System of Multicultural Pluralistic Assessment (SOMPA) (Mercer & Lewis, 1978; Mercer, 1977) was initially developed to prevent the mislabeling of minority children as mentally retarded (Mercer, 1973), the approach may be equally useful in identifying gifted minority children whose potential has been masked by cultural differences between the home and the school.

THREE ASSESSMENT MODELS

The SOMPA utilizes three assessment models: the medical model, the social system model, and the pluralistic model. Each model provides a different and important perspective of the child's competencies.

The Medical Model

The medical model is a deficit model that focuses on organic anomalies and pathologies. *Normal* is a residual category consisting of those who show no symptoms of pathology. Distributions of scores for medical model measures have low ceilings and long negative tails. Because of these characteristics, the medical model is not useful in identifying the gifted child.

The Social System Model

The social system model, on the other hand, is useful in identifying the child whose social role performance is outstanding. It derived from the social deviance model of sociology and defines behavior in terms of roles and social system norms. Thus, there are multiple definitions of *normal*. Each role in each social system has its own set of expectations, and different behavior is expected of an individual when he or she is playing different roles. To judge whether a particular set of behaviors is supranormal, normal, or subnormal requires four kinds of information: the system in which the person is functioning, the role he or she is playing in the system at the time the judgment is being made about his or her behavior, the expectations others in the system have for the behavior of persons playing that role, and information on his or her actual behavior. Norms for social systems are determined by political processes within the system. The dominant group in a system establishes the rules that govern behavior for various social roles.

The social system model is multidimensional, with norms for each role in each social system. It is evaluative in that the values of the most powerful groups are enforced. Since definitions of behavior are both role bound and system bound, it is necessary to specify both the role and the system within which the assessment is being made. It is both a deficit and an asset model because both the poor performers and the outstanding performers in various social roles can be identified. Consequently, test scores form a normal distribution. Measures appropriate to this model assess competencies as well as deficits. The validity of a measure is determined by the extent to which scores on the measurement correlate with independent judgments of the person's behavior made by members of the system. In SOMPA,* the Adaptive Behavior Inventory for Children (ABIC) serves as the measure of social role behavior. It provides information about the child's social role performance in the family, in the community, with peers, in nonacademic roles at school, as an earner and consumer, and in self maintenance. The Wechsler Intelligence Scale for Children-Revised (WISC-R; Wechsler, 1974), using standard norms, is also treated as a social system measure in SOMPA because it identifies those who are likely to succeed or fail in the role of student. Thus, the standard WISC-R score is interpreted as a measure of school functioning level (SFL).

Increasing levels of performance on the ABIC are measured by the number of social groups in which the child participates, the number of different roles played in these groups, the extent to which the child demonstrates internal control and independent behavior, and the complexity of his or her role be-

*SOMPA measures were standardized on 700 Hispanic, 700 Black, and 700 White children attending the California public schools. The samples were chosen to be representative of the public school population of children 5 through 11 years of age in each of those ethnic groups.

havior. Role behavior is scored by levels of competency: *latent*, if the child is reported as never demonstrating a particular role competency; *emergent*, if the child performs the role occasionally and/or under the supervision or direction of an adult; *mastered*, if the child regularly demonstrates competency in the role without supervision or adult assistance. High scores indicate the child is experiencing no difficulty in fulfilling social role expectations and may be performing above the level of expectations appropriate to his or her own age level. We believe that above average levels of competency in social role performance are an area of giftedness that should be identified. Such knowledge would be especially helpful to the educator as a basis for providing academic programming for minority children whose abilities are obscured by sociocultural differences between home and school.

The Pluralistic Model

The pluralistic model is also useful in identifying the gifted minority child (Mercer, 1978). The initial idea for the pluralistic model developed during our earlier studies of the labeling of the mentally retarded in the community (Mercer, 1973). That study clearly indicated that school psychologists were not limiting their interpretations of standardized test scores entirely to predictions about scholastic performance. They evidently believed that the scores on so called measures of intelligence indicated something about an individual child's learning ability or aptitude in general.

We theorized that it is possible to make inferences about learning potential only *if* certain conditions were met. Those persons whose performances are compared must:

1. Have had similar opportunities to learn the materials and acquire the skills covered in the test.
2. Have been similarly motivated by the significant other persons in their lives to learn this material and acquire these skills.
3. Have had similar experience with taking tests.
4. Have no emotional disturbances or anxieties interfering with test performance.
5. Have no sensorimotor disabilities interfering with prior learning or with their ability to respond in the test situation.

When these factors are held constant, the pluralistic model assumes that the individual who has learned the most probably has the most learning potential (Mercer, 1973, Chapter 16). If an individual's sociocultural background influences his or her opportunity to learn, motivation to learn, and test taking experience, we reasoned that controlling for sociocultural background would hold these three factors relatively constant. Those who are emotionally disturbed or physically disabled are detected by other measures.

We have developed four scales to measure sociocultural characteristics: urban acculturation, socioeconomic status, family structure, and family size. In the SOMPA, these four scores, which are measures of the child's sociocultural background, are inserted into multiple regression equations developed for his or her ethnic group by using scores on the WISC-R (Wechsler, 1974) as the dependent variable and the sociocultural scale scores as independent variables. The estimated average score for the sociocultural group to which the child belongs is then calculated. The WISC-R score for a particular child is then compared with the average score for others from precisely the same sociocultural and socioeconomic background. The adjusted WISC-R score is interpreted as the child's estimated learning potential (ELP). In the pluralistic model, *normal* is defined as performance near the average for children who are from similar sociocultural backgrounds. *Supranormal* is defined as performance higher than the average of the child's own sociocultural group.

The pluralistic model, then, is evaluative. It assumes that high potential is better than low potential. It is completely culture bound in that it compares a child's performance with his or her own sociocultural group. It is primarily an "asset" model. The pluralistic model assumes that learning potential is an attribute of the individual and that scholastic potential can exist, unrecognized, because a child's potential is masked by the social and cultural distance between the culture of the home and the culture of the school.

IDENTIFYING THE GIFTED MINORITY CHILD

We can identify the child who is gifted in social role performance using the Adaptive Behavior Inventory for Children. In addition, we can identify the child who is gifted in estimated learning potential. This two dimensional procedure yields four possible configurations of scores, as shown in Table 1.

Table 1
Typology of Giftedness

Estimated learning potential	Social role performance (ABIC)	
	Gifted	Not Gifted
Gifted	A	B
Not Gifted	C	D

Persons whose performance is represented by cell A of the typology would be those who score very high both in social role performance and in estimated learning potential. Those at cell B are those whose social role performance falls below the gifted level but have an estimated learning potential in the gifted range. Persons at cell C are social role gifted but score below the gifted range in estimated learning potential. Cell D represents those persons who score below the gifted range both in social role performance and in estimated learning potential.

Various cutoff levels could be used for identifying the gifted child depending on the purposes of those making the identification.* For illustrative purposes, we selected those children in the SOMPA samples who achieved a standard score of 80 or higher on any single scale in the ABIC, with no single score lower than 60, and defined them as *social role gifted*. Since the ABIC was standardized to have a mean of 50 and a standard deviation of 15, a score of 80 or above falls in the highest 2.5% of the scores. There were 94 children who met this criterion. Two children had a score of 80 or higher on all six ABIC subscales, 4 had high scores on five scales, 6 scored high on four scales, 17 scored high on three scales, 20 scored high on two scales, and the remainder scored high on one scale.

We then selected those children in the SOMPA samples who achieved an estimated learning potential greater than 129. This cutoff also includes only those scores in the highest 2.5%. There were 40 children who met the criterion. Two of the children who met the criterion for estimated learning potential also scored above 80 on one or more ABIC scales and, hence, would be represented by cell A of the typology. The remaining children would be represented either by cell B (if they had high estimated learning potential) or cell C (if they had high social role performance).

We then grouped the children by ethnic group to examine whether the comparative rates of identification were racially and culturally discriminatory. We found that .1% of the White majority group were represented by cell A, 2.8% by cell B, and 3.1% by cell C. We found that .1% of the minority children were represented by cell A, 1.5% by cell B, and 5.1% by cell C. If we add these percentages and define any child who scores in any of the three cells (A, B, or C) as gifted, there are approximately equal percentages of majority and minority children identified as gifted.

*The Educational Policies Commission (1950) suggests that students having IQ scores of 137 and above on a standardized test be identified as highly gifted, and those students having an IQ of 120 to 137 be identified as moderately gifted.

We have arbitrarily selected an IQ score of 130 as the lower limit of giftedness following the criteria of the California Project Talent (Committee on Education of Intellectually Gifted Pupils, 1962). Students with scores at these levels would rank roughly in the upper 2.5% of the total school population.

ILLUSTRATIVE CASES OF TWO GIFTED MINORITY CHILDREN

Two children have been selected from the case files to illustrate the usefulness of this approach in uncovering abilities that may be obscured by the cultural distance between home and school.

Belle Madison is a 9 year old Black girl attending the fourth grade in an elementary school located in the inner city of a large metropolitan school district. She lives with her mother and father and three sisters in a five room house. Her father is a painter who provides the sole support for the family. Her mother is not employed outside the home. Her mother and father both grew up in a small town in Mississippi. He completed 9 years of schooling and she completed 8 years. Belle's mother reports that she attends PTA and meetings of church groups a couple times a year but does not participate in any community groups or informal social groups. She also expresses a sense of powerlessness by agreeing that a person's fate is already determined at birth, that one must live for today, and that planning makes a person unhappy since plans hardly ever work out. The urban acculturation of the family background is very low compared with both the Black community and the culture of the school.

Belle's teacher reports that she is interested in schoolwork and eager to learn. She likes to read and takes work home from school. She did a special project for the class on sickle cell anemia in which she presented some drawings that she had done herself. The teacher was so impressed with her work that she referred Belle as possibly gifted.

Belle achieved a verbal score of 111, a performance score of 109, and a full scale score of 111 on the WISC-R when the standard norms were used. Although the scores are above average, they are not high enough to meet the requirements for entrance to a program for the gifted. Pluralistic norms were used and Belle's performance was compared with children from similar sociocultural backgrounds who, presumably, had had similar opportunities to learn the materials in the test. Her estimated learning potential was: verbal 130, performance 128, and full scale 134. The pluralistic model appears to confirm the teacher's assessment of Belle's potential. It places her in the upper 1% of the children in her own sociocultural group.

Roberto Cruz is a 10 year old boy of Hispanic background. He lives with his father and mother, five brothers and sisters, and an aunt and uncle and three cousins in a small, single family dwelling in East Los Angeles. His father provides all of the income for the family by installing ready made cabinets and furniture in mobile homes. Both of Roberto's parents were born and reared in Mexico City. His father completed the third grade and his mother completed the fourth grade in the public schools of that city. They moved to the United States after their marriage. The mother speaks only Spanish. The father has some rudimentary knowledge of English but speaks mainly Spanish. The mother reports that she does not participate in any school, church, community, or informal

social groups. She also feels completely powerless in controlling her own fate or planning for the future. Roberto scored well above average on the Adaptive Behavior Inventory and on the Bender-Gestalt test, and there was no evidence of sensorimotor or physical dexterity problems on the Physical Dexterity Tasks in the SOMPA.

Roberto achieved a verbal score of 109 on the WISC-R, a performance score of 107, and a full scale score of 111, using the standard norms for the test. However, when his sociocultural background was taken into account and his score adjusted to compare him only with children from a similar Hispanic background, his estimated learning potential was: verbal 134, performance 120, and full scale 130.

CONCLUSION

Using adaptive behavior and estimated learning potential to identify gifted minority children is a new approach. There has not yet been sufficient time to explore all the ramifications of this methodology. Our qualitative evaluation of the case reports on children in our files who have been identified as gifted using adaptive behavior and/or estimated learning potential is encouraging. As in the cases of Belle and Roberto, clinical judgment tends to support the numeric conclusions when complete information on the family background of the child is available. During the field test of the SOMPA procedures, the psychological staff of one school district administered all the SOMPA measures to 11 minority children who had been referred as possibly gifted by their teachers. Their full scale WISC-R scores, using the standard norms, ranged from 97 through 130. Their full scale estimated learning potential scores ranged from 99 through 150. Only one minority child would have been identified as gifted using the standard norms and a cutoff of 130. Five minority children would have been identified as gifted using estimated learning potential. Hence, estimated learning potential agreed more closely with teacher estimates than did the standard WISC-R scores. Further experience with these measures will provide more information on their limitations and strengths.

REFERENCES

- Committee on Education of Intellectually Gifted Pupils. *Education of intellectually gifted pupils in Los Angeles city schools*. Los Angeles: Los Angeles Unified School District, May 1962.
- Educational Policies Commission. *Education of the gifted*. Washington, D.C.: National Education Association and the American Association of School Administrators, 1950.
- Mercer, J. R. *Labeling the mentally retarded: Clinical and social system perspectives on mental retardation*. Berkeley and Los Angeles: University of California Press, 1973.

- Mercer, J. R. Identifying the gifted Chicano child. In Joe L. Martinez, Jr. (Ed.), *Chicano psychology*. New York: Academic Press, 1977.
- Mercer, J. R. *SOMPA technical manual*. New York: The Psychological Corporation, 1978.
- Mercer, J. R., & Lewis, J. F. *Parent interview manual*. New York: The Psychological Corporation, 1977.
- Mercer, J. R., & Lewis, J. F. *Student assessment manual*. New York: The Psychological Corporation, 1978.
- Wechsler, D. *Wechsler Intelligence Scale for Children-Revised (WISC-R)*. New York: The Psychological Corporation, 1974.

The Identification of Gifted Chicano Children

Ernest M. Bernal, Jr.

□ While traditional, test based techniques, most notably IQ and achievement instruments, serve to identify a great proportion of gifted Anglo students, only a few Chicanos are discovered in this fashion. Experience in Texas (Bernal, 1974) indicates that only about one in three is selected in this manner. It is likely that most of these are highly acculturated students whose cognitive abilities are closely congruent to those prized by the dominant ethnic group, to those measured by these instruments (Bernal, 1974; Mercer, 1976). Yet there are too many youngsters and adults whose real life achievements are not reflected in their test scores (Taylor, 1977).

The identification of most gifted Chicanos requires other techniques. A few years ago a research project (Bernal & Reyna, 1975) explored some of these alternatives, including observational measures. Prompted by the signal work of Mercer (1971), who used a number of inputs (including community informants) to enhance the validity of special education assessments, and armed with Guilford's (1965) Structure of Intellect model and the knowledge that different cultures do not reinforce or develop all cognitive abilities equally (Passow, 1972), this project undertook to discover how Chicanos themselves view giftedness.

CHARACTERISTICS OF GIFTED CHICANO CHILDREN

Three hundred interviews were conducted with barrio residents in three Texas cities. Most of the informants were parents, but some adolescent siblings of gifted children were also included. The characteristics of gifted Spanish speaking Chicano children were found to include:

1. Rapidly acquires English language skills once exposed to the language and given an opportunity to use it expressively.
2. Exhibits leadership ability, be it open or unobtrusive, with heavy emphasis on interpersonal skills.
3. Has older playmates and easily engages adults in lively conversation.
4. Enjoys intelligent (or effective) risk taking behavior, often accompanied by a sense of drama.
5. Is able to keep busy and entertained, especially by imaginative games and ingenious applications, such as getting the most out of a few simple toys and objects.
6. Accepts responsibilities at home normally reserved for older children, such as the supervision of younger siblings or helping others do their homework.
7. Is "street wise" and is recognized by others as a youngster who has the ability to "make it" in the Anglo dominated society.

TECHNIQUES FOR IDENTIFICATION

These general qualities—and the psychological traits they imply—are theoretically observable and measurable, but in these terms are perhaps useful guidelines for teacher, peer, or parent nomination. Most school systems, I believe, would still like to base their assessments of giftedness on tests, but on tests that yield valid results for a change. Accordingly, I would like to discuss three techniques for identifying gifted Chicano students: culturally pluralistic assessments, Piagetian measures, and bilingual language proficiency scales.

Culturally Pluralistic Assessments

Mercer's System of Multicultural Pluralistic Assessment (SOMPA) is discussed elsewhere in this book. I mention it here as a nontraditional technique, however, because it employs a way of calculating a student's estimated learning potential using national and ethnic-specific comparisons.

Piagetian Measures

Studies (Bernal, 1974; Bernal & Reyna, 1975; Bernal & DeAvila, 1976) suggest that Piagetian assessment techniques identify gifted Chicano children fairly well in kindergarten through third grade, although applications for other age groups may be possible. What one is looking for here is unusually advanced schemata or

ways of dealing with the problems posed. The Cartoon Conservation Scales are admirably suited for this task since they can be administered in English or Spanish (DeAvila & Havassy, 1975) and have been cross culturally validated on several ethnic groups (DeAvila & Havassy, 1975).

Bilingual Language Proficiency Scales

A third approach may be employed for children who are Spanish dominant when they enter school. By testing the children's language proficiency in both English and Spanish, one can determine their language dominance and their competence in both languages. Using these data one can establish baselines for these children and monitor their progress in second language acquisition.

Because of the close functional relationship between language and intelligent behavior, bilingual or Spanish monolingual Chicano children who demonstrate unusually high or sophisticated productive competence in their first language can be regarded as potentially gifted. If, in addition, they evidence rapid growth in English syntax and functional English language use, including the early onset of errors (such as hypercorrections) and creative constructions (e.g., "short sleeve pants"), the evidence for giftedness mounts and a diagnosis of giftedness should be made. Although several tests can be used, I recommend the Language Assessment Scales, the Bilingual Syntax Measure, and the English and Spanish productive language tests of the Circo battery.

Tests that do not require the child to use a variety of language forms in speaking or that rely heavily on "surface" language characteristics such as vocabulary should be avoided for this assessment, for they do not sample the deep cognitive processing of language or confuse achievement with potential. Given an appropriate educational environment, such as an enriched bilingual education, vocabulary can be easily learned by the gifted bilingual child. For identification, however, I believe we need to tap the more inherent or spontaneous process of syntactic acquisition.

CONCLUSION

A strong point, however, must be made in closing. Identifying gifted Chicano students by any other than traditional means will ultimately lead to the frustration of both school personnel and students unless the school that adopts these techniques is also willing to adapt itself to student needs and interests, to prize intellectual diversity in a way that schools have not usually done in the past (Gallagher & Kinney, 1974). On the positive side, a culturally and linguistically heterogeneous gifted program can have a very special ambience, one where learning is a truly broadening, human experience—perhaps just the kind of education that tomorrow's gifted adults ought to have today.

REFERENCES

- Bernal, E. M., Jr. Gifted Mexican American children: An ethno-scientific perspective. *California Journal of Educational Research*, 1974, 25, 261-273.
- Bernal, E. M., Jr. & DeAvila, E. A. Assessing gifted and average children with the *Cartoon Conservation Scales*. Paper presented at the Fifth Annual International Bicultural Bilingual Conference, San Antonio, TX, May 1976.
- Bernal, E. M., Jr. & Reyna, J. Analysis and identification of giftedness in Mexican American children: A pilot study. In B.O. Boston (Ed.), *A resource manual of information on educating the gifted and talented*. Reston VA: Council for Exceptional Children, 1975.
- DeAvila, E. A., & Havassy, B. The testing of minority children—a neo-Piagetian approach. *Today's Education*, 1974 (November-December), 71-75.
- DeAvila, E. A., & Havassy, B. Piagetian alternatives to IQ: Mexican American study. In N. Hobbs (Ed.), *Issues in the classification of exceptional children*. San Francisco: Jossey-Bass, 1975.
- Gallagher, J. J., & Kinney, L. (Eds.). *Talent delayed—talent denied: The culturally different gifted child, a conference report*. Reston VA: Foundation for Exceptional Children, 1974.
- Guilford, J. P. Intellectual factors. In M. J. Ascher & C. E. Bish (Eds.), *Productive thinking in education*. Washington DC: National Education Association, 1965.
- Mercer, J. R. *Pluralistic diagnosis in the evaluation of Black and Chicano children: A procedure for taking sociocultural variables into account in clinical assessment*. Papers presented at the meeting of the American Psychological Association, Washington, D.C., September 1971.
- Mercer, J. R. *Identifying the gifted Chicano child*. Paper presented at the First Symposium on Chicano Psychology, Irvine CA, May 1976.
- Passow, H. A. The gifted and the disadvantaged. *National Elementary Principal*, 1972, 51 (5), 24-31.
- Taylor, D. Status report: APA minority program. *APA Monitor*, September/October 1977, 7, 23.

Nondiscriminatory Testing Procedures to Assess Giftedness in Black, Chicano, Navajo, and Anglos

Mary Meeker

☐ We have long searched for ways to identify cognitive strengths in children growing up in environments that are not advantageous for, or conducive to,

developing abilities that lead to success in school. Between 1962 and 1975, psychologists who wanted to identify gifted minority or disadvantaged children used Stanford-Binets or the Wechsler Intelligence Scale for Children (WISC) with a Structure of Intellect (SOI) analysis to identify the dimensions of giftedness. A graph was then made using templates showing a high or low score on cognitive abilities, as defined in Guilford's Structure of Intellect Analysis.

Information gained from the SOI-Binet and WISC profiles and graphs led to the development of the SOI Learning Abilities Test. Teachers and psychologists, armed with the information derived from the SOI, could implement a curriculum, targeted directly to diagnosed individual needs, to develop the identified intellectual abilities (whether strong or weak). A preventive educational program could then be prescribed that would develop learning readiness and strengths and, thus, insure initial success in learning experiences (Meeker, 1963).

In light of this new approach to education, this section addresses two issues. First, I will discuss the identification and separation of gifted abilities apart from a gifted score. Binet-identified gifted SOI samplings will be used to explain our contributions to understanding this issue. (Please refer to the *Journal of School Psychology*, December 1973, for a comprehensive explanation of the graphs—a beginning knowledge of the SOI will facilitate reading these graphs.) The second issue to be discussed is the identification of gifted level cognitive abilities in disadvantaged minority children.

IDENTIFYING AND SEPARATING GIFTED ABILITIES

Table 1 demonstrates the strengths of identified gifted minority boys with Binet scores ranging from 132 to 153. The graphs allow us to compare SOI dimensions

Table 1
Strengths of Binet Identified Gifted Minority Boys
(Level of Significance .01)

Groups	Operations					Contents			Products					
Chicanos (C)	C	M	E	N	D	F	S	M	U	C	R	S	T	I
CA 4-9	12	5	7	10	1	21	2	12	8	6	5	10	2	4
	(out of 18)					(out of 30)			(out of 15)					
Blacks (B)	C	M	E	N	D	F	S	M	U	C	R	S	T	I
CA 4-9	7	7	2	5	2	10	3	11	6	2	3	7	1	5
Anglos (A)	C	M	E	N	D	F	S	M	U	C	R	S	T	I
CA 4-9	16	2	7	12	2	16	2	21	8	7	9	5	3	7

Note: The numbers in the graph indicate the number of factors the subjects were significantly strong in.

of abilities in disadvantaged boys identified as gifted. Chicanos are high in cognition (comprehension). The Blacks are low in cognition, evaluation, and divergent thinking. The Anglos are high in cognition and convergent (school learning) abilities, and low in memory and divergent thinking. In general, these graphs show low scores in creative thinking and memory (see Figures 1, 2, and 3 and Table 2).

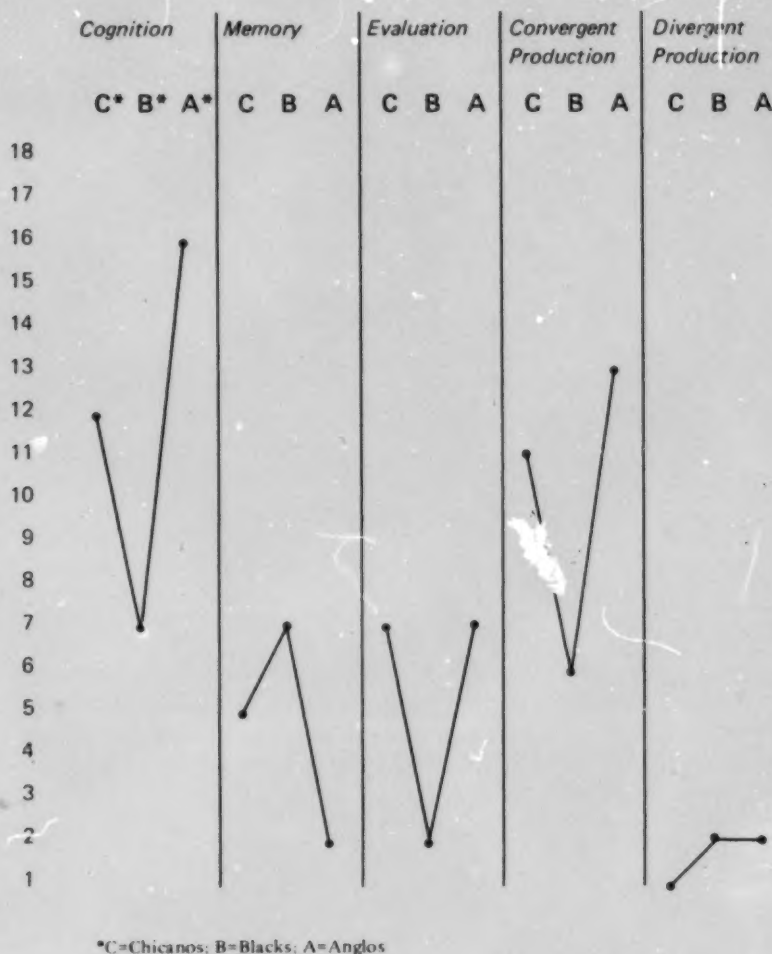


Figure 1. Major Operations

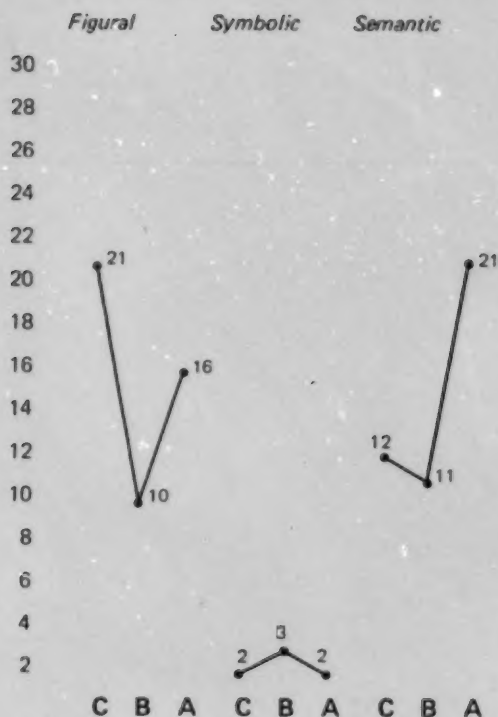


Figure 2. Major Contents (Out of a Possible 30)

The information gained from these SOI graphs is needed as a basis for understanding the qualitative cognitive differences among disadvantaged 5 to 9 year old urban boys. The Anglos within the same range of IQ scores do show higher cognition, school learning, and semantic skills—the most prevalent abilities used in academic achievement.

IDENTIFYING COGNITIVE ABILITIES

A cognitive assessment instrument for gifted disadvantaged minority children should be nonpunitive for those whose lack of formal English would generally penalize them on the Binet or WISC. The instrument should also bear construct and congruent validity with school achievement; it should be developmental and as nondiscriminatory as possible.

The SOI analysis of the Binet (Meeker, 1962) indicated that there are 159 verbal items in the Binet and 107 in the WISC, with even more in the WISC-R. Thus, children unfamiliar with the majority language may appear less intelligent when measured on these tests than when measured on a nondiscriminatory assessment instrument such as a test more heavily weighted in pure factored figural (spatial) intelligence. The findings from the examination of thousands of SOI-Binet and WISC analyses since 1962 led to some basic hypotheses about the relationships between specific SI (theoretical Structure of Intellect) abilities and learning patterns.

In 1970, these tentative hypotheses led to the development of pilot SOI subtests to check out the hypothesized relationships. By 1973, the constellations of SOI abilities seemed firm enough to predict the effectiveness of postulating a

Table 2
Significant SOI Strengths
(Level of Significance .01)

Groups	Comprehension Cognition	Memory	Evaluation	Convergent Production	Divergent Production
Chicanos	CFC	MFU	EFU	NFU	DMS
	CFS	MSS	EFR	NFC	
	CFT	MSI	EFS	NFR	
	CFI	MMS		NFS	
	CMC			NMU	
	CMS			NMC	
	CMI				
Blacks	CFU	MSS	EFU	NFR	DMS
	CFC	MSI	EMR	NFI	
	CMS	MMU		NMI	
		MMS			
Anglos	CFU	MSI	EFR	NFU	DMS
	CFC	MMU	EFS	NFC	
	CMU		DMR	NFR	
	CMC		EMT	NFI	
	CMR			NSS	
	CMT			NMU	
	CMI			NMC	
				NMR	
				NMI	

Note: See glossary at the end of the section for description. This table is explained fully in the *Journal of School Psychology*, December 1973.

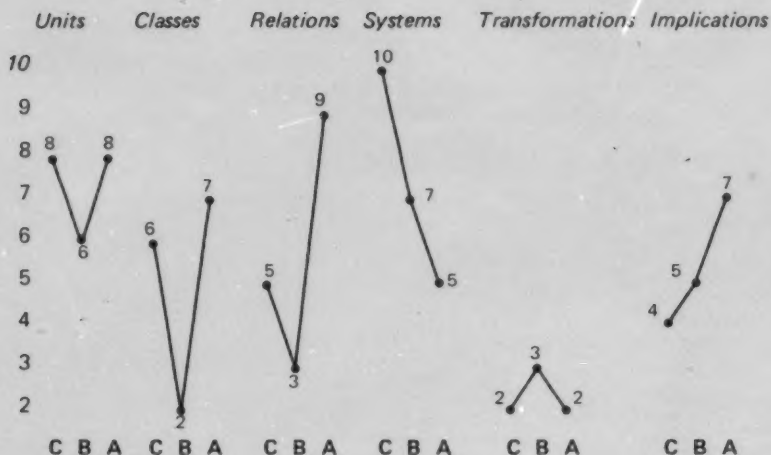


Figure 3. Major Products (Out of 15 Possible for Each Product)

SOI Test of Learning Abilities. By 1974, pilot testing was begun including samples from 500 to 1200 students in each grade (kindergarten through grade 11) of Black, Mexican American, and Anglo students, plus an additional 800 neurologically diagnosed special education children. Item analyses and cross validation studies were included in the present Basic and Special Edition of the SOI-LA group test.

IDENTIFYING GIFTED NAVAJO STUDENTS

Evelyn Hahn of the Bureau of Indian Affairs was given a small grant to try to identify gifted Navajo students in Chuska, New Mexico, and Geasewood, Arizona, reservation schools. Her major concern was being unable to identify at a gifted level those students who consistently scored at the 97 to 99th percentile in standardized math tests because previous testing on the Binet or WISC had placed them in a retarded range of intelligence. The SOI-LA test, being heavily figural and minimally semantic (verbal, in direct disproportion to the WISC and Binet tests), identified 67 (34 boys and 33 girls in grades 3, 4, and 5) out of over 440 students who scored 3 years above grade level on at least 5 of the 24 SOI-LA subtests.*

Parenthetically, only one of the students scored above grade level on one verbal subtest. We used three levels above grade placement as the criterion for a gifted index; 67 students met this criterion on at least 3 of any 24 subtests.

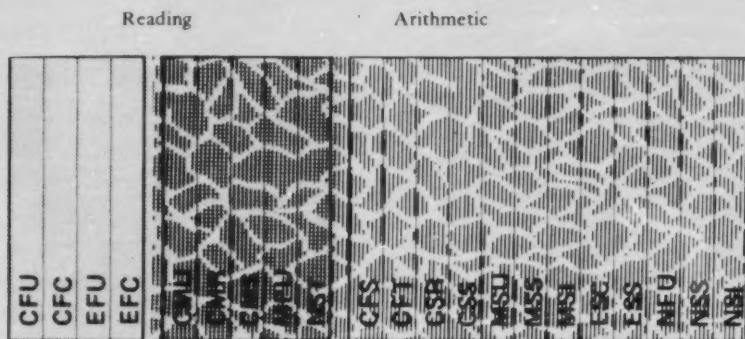
*The criterion for a gifted level in any one ability was a score 3 years above the expected age score.

(Binet-identified gifted students score at 3 years above grade level on at least 3 of the 24 subtests and almost consistently 3 out of the same 10 subtests.) Thus, we were able to develop a screening form for giftedness that teachers may administer to an entire class. As with the Binet-identified gifted, the 67 Navajos also scored highest on memory but, unlike Binet-identified who scored gifted in visual memory, which is most highly related to language arts, these students scored gifted in auditory memory, which is the ability most correlated with success in mathematics. From the 67 Navajo children we selected (on test data only), 30 participated in a year long SOI resource room program, 27 of the 30 were also selected on Evelyn Hahn's criteria which included SOI scores, leadership skills, and talent and psychomotor skills (Meeker, 1975).

Further analysis of the test data showed low semantic scores (verified by low Binet and WISC scores), high figural ability, and, surprisingly, very low classification skills in the figural dimension. This was surprising because the classification skills in general provided the basis for concept formation. We later learned that the Navajo language is a spoken, sparse (aurally learned), language with a minimum of, or no words for, classification. As a consequence, this year the SOI individualized programs for Navajo students are heavily oriented to developing basic or rudimentary classification skills. This is critical if social and cultural integration is to take place when the children leave the reservation to enter the majority culture.

FURTHER INVESTIGATIONS

We are currently examining SOI test data on disadvantaged Blacks identified as gifted. Current indicators point to nine SOI-LA subtests on which the students



Use auditory, visual and tactile, or haptic modes where possible for each of the abilities listed above, both in testing and in training of the skills.

Figure 4. The SOI Abilities that Research and Validation Efforts Since 1962 Have Shown To Be Foundational to the Learning of Reading and Mathematics.

score gifted inclusive of the memory subtests, but exclusive of the four semantic subtests that appear in the SOI-LA screening form for the gifted. We should, within a year, have enough data to support the rationale for a different screening form for disadvantaged Blacks. All three divergent tests (figural, symbolic, and semantic) seem likely to be included for these children. The Binet-SOI analysis does not include measurement of divergent figural abilities (see previous figures), and none of the Wechsler tests measure divergent thinking skills. Concurrent investigation into SOI-LA scores for Mexican Americans leads us to believe it will be possible to develop a specific screening form for identifying cognitively gifted Mexican American children that will circumvent the language-cultural bias in traditional assessment. When this occurs, educators will have to ask the questions: "Where are the gifts?" and "What is giftedness?" not, "What is the score?"

GLOSSARY FOR SOI FACTOR DEFINITIONS

Cognition

- CFU—Ability to identify objects by name, visually and aurally*
- CFC—Classifies perceived objects*
- CFR—Ability to discover relations in perceptual material
- CFS—Perceives spatial patterns and maintains orientation*
- CFT—Manipulates or transforms objects into another visual arrangement*
- CFI—Explores visually ways to select most effective action
- CSC—Discovers complex relationships, patterns, or systems involving symbols
- CSF—Discovers relations involving letter patterns
- CSS—Ability to discover complex relationships forming patterns or systems involving symbols*
- CMU—Vocabulary concepts*
- CMC—Ability to identify classes of words
- CMR—Discovers relations in conceptual, abstract meanings*
- CMS—Ability to comprehend or structure problems in preparation for solving them*
- CMT—Sees several meanings to a word or expression
- CMI—Anticipates needs or consequences of a given situation

Memory

- MFU—Recalls materials learned by visual and auditory presentation*
- MFS—Recalls arrangement of objects previously presented
- MFT—Memory for transformations of figural material previously changed
- MSU—Recalls for immediate production after one presentation a series of numerals or letters*
- MSS—Memory for a system of numerals, symbols, or letters*

MSI—Memory for well-practiced number operations*

MMU—Reproduces previously presented ideas or words

MMR—Remembers meaningful pairs of words

MMS—Remembers order of materials or events presented visually or aurally

Evaluation

EFU—Ability to identify identical forms*

EFC—Ability to classify forms*

EFR—Ability to evaluate figural relationships

EFS—Ability to evaluate and decipher systems, beginnings, and ends

EFI—Sensitivity to problems, spatial; seeing defects and deficiencies

ESC—Ability to judge correctness of symbolic concepts*

ESR—Can decide which symbolic relations are consistent with others in a series

ESS—Can decide which symbolic relations will meet given criteria*

EMU—Ability to apply varied word meanings

EMR—Uses logical relationships in testing correctness of conclusions

EMS—Appraises aspects of common situations in terms of experience

EMT—Can apply practical judgment about ideas

Convergent Production

NFU—Ability to comprehend and reproduce an observed bit of behavior*

NFC—Ability to sort or classify

NFR—Ability to deduce figural relationships

NFS—Reproduces a system of figural design

NFI—Ability to solve simple equations in terms of familiar forms

NSR—Finds nonverbal response to fulfill a given relationship between numerals or letters

NSS—States the order of symbolic systems from start to goal correctly

NST—Ability to see how words can be elicited

NSI—Substitutes or derives symbols as expected*

NMU—Ability to state correct names of concepts and ideas

NMC—Forms correct groups from a large number of words or objects

NMR—Ability to correlate semantic representation

NMS—Arranges objects or events into a meaningful sequence

NMT—Shifts function of objects or part of something to use in a new way

NMI—Ability to state the correct deduction from given facts

Divergent Production

DFU—Fluency with spatial concepts*

DFC—Reclassifies perceived objects in various ways

DSU—Produces words fulfilling specified structural requirements

DSR—Generates a variety of relations between numbers or letters*

DSS—Produces symbolic systems in unique ways

DST—Divergent production of transformations made to symbolic material

DMU—Ability to call up many ideas in a specified class*

DMR—Produces words from given words as synonyms, or as associated words

DMS—Analogical completions

DMT—Ability to produce remotely associated, clever, or uncommon responses

DMI—Specifies details that develop a scheme or variation of an idea.

*Abilities tested in the SOI-LA Test.

Finding the Ablest Mathematical Reasoners in a Specifically Designated Group

Julian C. Stanley

☐ The model to be described has great generality. It can be applied to almost any special group, however defined. Here are its main features:

1. Define the specific group in which you are interested.
2. Determine which tests and other assessment instruments are valid for helping attain the goals you set up for that group.
3. Provide the practice testing and rapport building needed to carry out the testing and assessment effectively.
4. Identify the highest scorers in the group. Study them further with more difficult tests and in whatever other ways seem relevant for your goals.
5. Choose those persons most likely to benefit from the special treatment you plan to provide.
6. Intervene in systematically planned ways, giving appropriate attention to evaluation at every stage.
7. The next time you carry out the identification, study, and facilitation phases, profit from what you learned the first time.

RATIONALE FOR THE MODEL

It is well known that members of some groups score higher, on the average, in certain characteristics than do members of certain other groups. For example, men tend to be taller than women. If one is seeking prospects for an activity in which height is important, such as forming a women's basketball team, the logical procedure is to choose, from the tallest women, those who have other characteristics such as stamina and motivation. If, on the other hand, the basketball team is to include members of both sexes, it may be difficult to find as many women who are as well qualified in terms of height as men.

Another example is mathematical reasoning ability. In each of its first four talent searches the Study of Mathematically Precocious Youth (SMPY) found that able seventh and eighth grade males averaged appreciably higher on the mathematical part of the College Entrance Examination Board's Scholastic Aptitude Test (SAT-M) than able females in those grades did.* Furthermore, all of the top scorers among the 2000 boys and 1500 girls tested thus far have been males.

In SMPY's first contest, held in 1972, 19% of the boys scored higher (610-790) than any girl. In the second contest the percent was 7 (i.e., top score of 650 for girls, with 7% of the boys scoring 660-800). In the third contest one girl scored 700, and only about 1.5% of the boys scored higher (710-760). In the contest that was conducted in December of 1976 and involving 366 girls and 507 boys (nearly all of them seventh graders), the top score earned by a female was 610, versus 620-780 by 5.5% of the males. For background about SMPY's talent searches, see Stanley, Keating, and Fox (1974), Keating (1976), Stanley (1977), and George and Cohn (1977), and Cohn (1977).

APPROACHING THE PROBLEM

This is the *what* of the situation. The *whys* of it are difficult to assess, e.g., see Astin (1974), Anastasi (1974), and Fox (1976; 1977). It does seem, however, that the SAT-M scores are at least as predictably valid for the girls as they are for the boys. That creates a dilemma, because if one were to provide special mathematical instruction such as a high level fast math class for the 28 contestants who in 1976 scored highest on the test of mathematical reasoning ability, all of its members would be male. There are two general approaches to solving this problem.

First, try to bring the mathematical reasoning ability of the ablest girls up to that of the ablest boys. How this might be attempted and whether or not such attempts would be successful must be determined empirically. It might not

*These were the top 2 to 3% of youths, according to national norms for the mathematical section of a standardized achievement test routinely administered in the various schools of Maryland and adjoining states.

prove feasible to do this with seventh graders. One might have to begin earlier than ages 11 through 13.

Second, create a special situation involving only those girls who scored highest among the females, even though none of them scored as high as the top scoring 5.5% of the males. Provide long continued extra instruction and role models geared to their needs, according to the philosophy and techniques espoused by Fox (1976). Do not involve the girls in direct mathematical competition with the higher scoring boys until strong compensatory measures have had their desired effect.

Obviously, both the why seeking method of the first approach and the behavioral engineering of the second approach are needed, though probably not for the same students. If one is to help a special group here and now, the luxury of long term investigation must be foregone.

Let us consider a goal, such as producing more females who hold Ph.D. degrees in the mathematical and physical sciences. It would seem sensible to put the most promising girls, identified at an early age via appropriate tests and related measures, in a special program that would maximize their chances of developing the abilities and the motivation needed to culminate in engineering doctorates many years later. To choose them initially mainly on the basis of such considerations as pleasing personality and apparent cultural deficits, rather than primarily on demonstrated aptitudes, would seem unwise.

CONCLUSION

Recently there have been many efforts to throw out the psychometric baby along with the dirty bath water. If boys score higher on SAT-M than girls do, then (according to this view) there must be something wrong with the test and it should not be used for selection at all. This is almost as ridiculous as burning all measuring sticks because women tend to be shorter than men. One should, of course, insist that the measurement process itself not be biased with respect to sex and that before they are tested with a psychological test such as SAT-M both groups have plenty of practice on the types of items used. Simply to *assume*, however, that a difference between means or in percentage of high scorers *must* be evidence of bias and invalidity is either naive or pernicious. One cannot get around the implications by refusing to face the facts.

Thus we at SMPY persistently support a test oriented approach, realizing full well that other factors in addition to various measured aptitudes and achievements are important—often crucial. For example, persons who score high on SAT-M but refuse to do homework regularly and well tend not to succeed in our fast math classes. On the other hand, even fanatical devotion to homework will not compensate for mathematical reasoning ability much lower than that of

other members of the fast math class. Certain cognitive abilities are usually necessary but not sufficient.*

*For five alternative approaches that differ from this model see Stanley, George, & Solano (1978).

REFERENCES

- Anastasi, A. Commentary on the precocity project. In J. C. Stanley, D. P. Keating, & L. H. Fox (Eds.), *Mathematical talent: Discovery, description, and development*. Baltimore: Johns Hopkins University Press, 1974.
- Astin, H. S. Sex differences in mathematical and scientific precocity. In J. C. Stanley, D. P. Keating, & L. H. Fox (Eds.), *Mathematical talent: Discovery, description, and development*. Baltimore: Johns Hopkins University Press, 1974.
- Cohn, S. J. Cognitive characteristics of the top-scoring third of the 1976 talent search contestants. *ITYB* (Intellectually Talented Youth Bulletin, published 10 times per year by the Study of Mathematically Precocious Youth) 1977, 3(10), 3-6.
- Fox, L. H. Sex differences in mathematical precocity: Bridging the gap. In D. P. Keating (Ed.), *Intellectual talent: Research and development*. Baltimore: Johns Hopkins University Press, 1976.
- Fox, L. H. Sex differences: Implications for program planning for the academically gifted. In J. C. Stanley, W. C. George, & C. H. Solano (Eds.), *The gifted and the creative: A fifty-year perspective*. Baltimore: Johns Hopkins University Press, 1977.
- George, W. C., & Cohn, S. J. The talent search results are in! *Intellectually Talented Youth Bulletin*, 1977, 3 (6), 1.
- Keating, D. P. (Ed.). *Intellectual talent: Research and development*. Baltimore: Johns Hopkins University Press, 1976.
- Stanley, J. C. Rationale of the Study of Mathematically Precocious Youth (SMPY) during its first five years of promoting educational acceleration. In J. C. Stanley, W. C. George, & C. H. Solano (Eds.), *The gifted and the creative: A fifty-year perspective*. Baltimore: Johns Hopkins University Press, 1977.
- Stanley, J. C., George, W. C., & Solano, C. H. (Eds.). *Educational programs and intellectual prodigies*. Baltimore: Johns Hopkins University Press, 1978.
- Stanley, J. C., Keating, D. P., & Fox, L. H. (Eds.). *Mathematical talent: Discovery, description, and development*. Baltimore: Johns Hopkins University Press, 1974.

Ways of Discovering Gifted Black Children

E. Paul Torrance

□ If educators are really interested in identifying gifted and talented students in minority groups, they will direct their searches to those characteristics that

are valued by the particular minority groups. Since few of our standardized tests assess characteristics valued by minority groups, the most valid indicators are likely to be outstanding performances in activities that make use of these characteristics. My associates and I (Torrance, 1977) have found that activities such as the following are most effective in eliciting gifted performances among Black children in the southeastern part of the United States: lifelike problems, group games, role playing and sociodrama, visual arts, creative movement and dance, dramatics and storytelling, creative writing (especially poetry and humor), music, brainstorming, and creative problem solving. Unless a school's curriculum includes such activities and teaches them in ways that are compatible with the learning and thinking styles of Black children only limited success with this approach can be expected.

Because most schools do not provide adequate opportunity for the display of outstanding performance in the activities just listed and because specialists in the education of gifted and talented children are untrained in evaluating such performances, practical considerations may make it necessary to fall back on standardized tests that either lack cultural bias or are actually biased in favor of the minority group. I shall limit myself to those tests with which I have had some experience and shall not attempt to identify and review all tests that meet one of these criteria.

TESTS LACKING MINORITY GROUP BIAS

It is widely acknowledged that the standardized intelligence and achievement tests now in use are biased in favor of children reared in the mainstream, affluent culture of the United States (Jensen, 1969; Kamin, 1974; Zach, 1972). It has been found that some of the subtests such as the Arithmetic Problems, Comprehension, Similarities, and Digits Forward are less biased than others for Black children (Halpern, 1973). However, we must turn to tests of other kinds of giftedness to find standardized tests lacking in bias against Black children.

Generally, open ended tests of creative thinking lack bias against minority group cultures. The only such test that I have used extensively is the Torrance Tests of Creative Thinking (Torrance, 1974). However this conclusion regarding the TTCT is not limited to the experiences of my associates and myself. It is supported by independent studies conducted in a great variety of localities. In 1971, I summarized 16 studies from different sections of the United States to investigate racial and/or socioeconomic status differences on the Torrance Tests of Creative Thinking. In some of these studies there were no racial or socioeconomic differences. In others, Black children scored higher than White children on certain activities and White children scored higher than Blacks on others. The same was true where socioeconomic status differences were examined. Overall, there were no racial or socioeconomic differences. More recently I have updated this review (Torrance, 1977) and the conclusion remains unchanged.

There is really nothing mysterious or puzzling about the findings of these studies of Black and White differences in creative thinking. The test activities are open ended and a person may respond to them in terms of his or her own experiences whatever these may have been. Furthermore, there is a great deal in Black cultures that encourages creative thinking—basically going beyond learned solutions. Of course, certain types of test administration may determine whether there is racial bias in the testing procedure. For example, in schools in the southeastern part of the United States, Blacks generally perform less well on the verbal tests than Whites and as well or better on the figural tests. However, this difference on the verbal tests occurs only when the tests are administered in a formal school setting. If Black children know that "it's all right" to respond in Black English and are not required to translate their responses into standard English, spell it, and write it on paper, they will perform as well as White children. However, by the middle grades many Black children have developed such deficits in reading, spelling, and writing that their thinking is impeded if they are required to write their responses and feel that they must be written in standard English.

While there has not been much research with the other tests of creative thinking that I have developed, we are obtaining the same kind of results with such tests as Sounds and Images (Torrance, Khatena & Cunningham, 1973) and Thinking Creatively with Action and Movement (Torrance, 1976). Sounds and Images requires the child to describe the images suggested by a series of sound effects. The child is free to pull from his or her storehouse of imagery and Black children seem to have as rich a storehouse of imagery as White children. Thinking Creatively with Action and Movement is designed for children ranging in age from 3 to 7 years. Responses can be made in action and movement or by describing the movement or action that would solve the problems posed. The mean scores of Blacks and Whites are almost identical. However, the routes by which these identical means were attained were quite different. The Black children responded in "action and movement," while the White children tended to respond verbally, "telling what they would do."

While I am making no attempt to review tests lacking in Black-White bias, I would like to call attention to the Alpha Biographical Inventory developed by Taylor, Ellison, and their associates (1968). The creativity score yielded by this test has no Black-White bias and has promising validity in long range studies of predictive validity (Torrance, Bruch, & Morse, 1973). In a review of this instrument, Lunneborg (1971) stated that the very fact that scores derived from this instrument correlate zero with race in a biracial (Black-White) study in a large group of high school students in a southern state should make it valuable in talent identification. He encouraged refinement, increased research, and eventual widespread use.

TESTS THAT TAP CULTURAL STRENGTHS

Tests that tap the cultural strengths of the major minority groups are necessary if we honestly want to identify the potentialities of such groups. Only such tests would give minority group children a fair chance to show how well they can cope with the demands of their culture and how well they have developed the abilities that are valued by their minority group. This has been the strategy of psychologists such as Williams (1972a and b) in the development of his BITCH-100 (Black Intelligence Tests of Cultural Homogeneity). Williams has argued that since American culture is pluralistic on the one hand and racist on the other, it would be practically impossible to create a test that would be fair to all groups—Blacks, Chicanos, Chinese, American Indians, Puerto Ricans, etc. Williams deliberately biased his test in favor of Blacks by selecting vocabulary items used in Black culture but not in White culture. On the BITCH-100, Blacks score a mean of about 36 points higher than Whites. Williams reported that Black students enjoy taking the test and find humor in it while White subjects are visibly uncomfortable. My own experiences in using this test in Georgia confirm Williams' observations.

CONCLUSION

Thus far, there has been little use of either of the two types of tests discussed here. One would expect that as we have moved to accept the pluralistic nature of the United States' society, there would be a growing acceptance of these kinds of measures. This has not happened. However, there have been some indications of a growing acceptance of the six categories of giftedness identified by the Office of Gifted and Talented of the United States Office of Education (United States Commissioner of Education, 1972). These include academic giftedness, special academic aptitudes, creative and productive thinking, visual and performing arts, leadership, and psychomotor giftedness. If this apparent trend continues, and if measures are developed to assess these six categories of giftedness, it is likely that minority group students will have a far better chance of being identified as gifted and/or talented. The first two categories will probably include primarily White students from the mainstream culture. Gifted minority group members are likely to have a good chance to qualify in the other four categories. This has already happened in special programs for students gifted and talented in such creative arts as drama, painting, sculpture, dance, instrumental music, vocal music, and creative writing. Primarily, these programs have used interviews, creative products, and auditions in the identification process. On these criteria, Black and other minority group members have qualified and have been outstanding achievers in the programs.

REFERENCES

- Halpern, F. *Survival: Black/White*. New York: Pergamon Press, 1973.
- Jensen, A. R. How much can we boost IQ and scholastic achievement? *Harvard Educational Review*, 1969, 39, 1-123.
- Kamin, L. J. *The science and politics of IQ*. New York: Wiley, 1974.
- Lunneborg, C. E. Review: Alpha Biographical Inventory. *Journal of Educational Measurement*, 1971, 8, 233-234.
- Taylor, C. W., & Ellison, R. E. *Alpha Biographical Inventory*. Salt Lake City UT: Institute for Behavioral Research in Creativity, 1968.
- Torrance, E. P. Are the Torrance Tests of Creative Thinking biased against or in favor of disadvantaged groups? *Gifted Child Quarterly*, 1971, 15, 75-80.
- Torrance, E. P. *The Torrance Tests of Creative Thinking: Norms-technical manual*. Lexington MA: Personnel Press, 1974.
- Torrance, E. P. *Thinking creatively in action and movement*. Athens: Georgia Studies of Creative Behavior, University of Georgia, 1976.
- Torrance, E. P. *Discovery and nurturance of giftedness in the culturally different*. Reston VA: The Council for Exceptional Children, 1977.
- Torrance, E. P., Bruch, C. B., & Morse, J. A. Improving predictions of the adult creative achievement of gifted girls by using autobiographical information. *Gifted Child Quarterly*, 1973, 17, 91-95.
- Torrance, E. P., Khatena, J., & Cunningham, B. F. *Thinking creatively with sounds and words*. Lexington MA: Personnel Press, 1973.
- United States Commissioner of Education. *Education of the gifted and talented*. (Report to the Congress of the United States) Washington D.C.: US Government Printing Office, 1972.
- Williams, R. L. *The BITCH-100: A culture specific test*. ERIC Document 070799, Bethesda MD: ERIC Document Reproduction Service, LEASCO Information Products, 1972a.
- Williams, R. L. *The BITCH Test (Black Intelligence Test of Cultural Homogeneity)*. St. Louis MO: Williams and Associates, 7201 Creveling Drive, 1972b.
- Zach, L. The IQ debate. *Today's Education*, 1972, 61(6), 40-43, 65-66, 68.

The Baldwin Identification Matrix

Alexinia Y. Baldwin

- ☐ Assuming that a school district accepts the rationale for an expanded definition of the gifted, this district faces the dilemma of pulling together a workable,

practical, nondiscriminatory format that will help the participants interpret the child's qualification for a specially designed program. In using this approach, the first step for the user of the Baldwin Identification Matrix (BIM) is to con-

Student Joseph Matrix School Loma Elementary
 Age 9 Grade 3 Sex M Date 5-6-78 School District Eastern

Assessment Items	Scores					B-NA
	5	4	3	2	1	
1. Standardized Intelligence Test	140+ ()	130-139 ()	120-129 (✓)	110-119 ()	100-109 ()	
2. Achievement Test Composite Score	95%ile ()	90-94%ile ()	85-89%ile (✓)	80-84%ile ()	75-79%ile ()	
3. Achievement Test—Reading Score	Stan 9 (✓)	Stan 8 ()	Stan 7 ()	Stan 6 ()	Stan 5 ()	
4. Achievement Test—Math Score	95%ile ()	90-94%ile ()	85-89%ile (✓)	80-84%ile ()	75-79%ile ()	
5. Learning Scale Score	32 (✓)	28-31 ()	24-27 ()	20-23 ()	16-19 ()	
6. Motivational Scale Score	36 (✓)	32-35 ()	28-31 ()	24-27 ()	16-23 ()	
7. Creativity Scale Score	40 (✓)	36-35 ()	32-35 ()	28-31 ()	20-27 ()	
8. Leadership Scale Score	40 ()	36-39 (✓)	32-35 ()	28-31 ()	20-27 ()	
9. Various Teacher Recommendations	Superior ()	Very Good (✓)	Good ()	Average ()	Below Average ()	
10. Psychomotor Ability	()	(✓)	()	()	()	
11. Peer Nominations	()	(✓)	()	()	()	
12.	()	()	()	()	()	
Column Tally of Checks	4	4	3	0	0	
Weight	x5	x4	x3	x2	x1	
Add Across	20	16	9	0	0	
Total Score	45					

Figure 1. Baldwin Identification Matrix—Sample Form

sider the traits included in the HEW definition of giftedness as constants (Marland, 1971). These constants are general academic ability, creative ability, psychomotor ability, and psychosocial ability. The next step would be to select an array of techniques for establishing exceptional strengths in the particular area.

The vertical axis (see Figure 1) of the matrix includes the selection of assessment techniques. The horizontal axis includes a scale of 1 to 5 that represents a ranking of scores for each child who is average or above in any or all of the areas listed in the definition. Upon completion of the matrix, the researcher totals the points made on all variables with 5 being the highest possible score that can be received on any one variable. The sum of the points received by each child on the horizontal axis equals the total score for the individual. The highest possible score equals the number of items on the vertical axis times five.

According to the plan for a community, children can be selected from the gross screening for particular program emphases, i.e., mathematics, science, general abilities, creative development. The profile can also be used to establish an equitable cutoff point for acceptance into districtwide programs of some type.

The BIM has been designed and used successfully in the Minnesota school districts to combine all of the assessment techniques into a profile that allows a child equal access to a specially designed program for children who exhibit exceptional ability in a wide range of areas. Some of the advantages of a BIM format include:

1. It allows a school district to use available information for assessment of a child's capabilities.
2. It produces a total score that gives the child from a different culture an opportunity to compete for recognition in a specialized program. This advantage also applies to the child whose talents or giftedness lies in areas that have traditionally been excluded from recognition.
3. It allows the district to assess the strengths as well as the weaknesses of those children who are exceptionally gifted in the traditional areas of assessment.
4. It gives the district an opportunity to tailor the program to the abilities exhibited on the profile sheet (a threshold program that helps children to develop the areas of weaknesses before entering the arena of high competition in this area).
5. It provides a starting point for curriculum development and an organizational structure for meeting the needs of the identified children.
6. It surfaces the underachiever.

In conclusion, the BIM format is suggested as a way to more equitably assign students to gifted programs. It does not suggest or recommend that standardized instruments such as IQ tests and achievement tests be ignored. Rather, it

suggests that additional instruments, which expand the data base and establish the acceptance of a broad range of abilities, be added.

REFERENCES

Marland, S. P. Jr. *Education of the gifted and talented*, Vol. 1. Report to the Congress of the United States by the US Commissioner of Education, 1971.

3. Curriculum and Methods— What Is the Difference?

Alexinia Y. Baldwin

□ A quality program for gifted children with unique needs involves proper identification and diagnosis; a curriculum that establishes parameters for instructional decisions; enriching experiences through varied teaching strategies; and a teacher with qualities of humanness, perception, patience, and intelligence. There should be a melding of all of these areas in total program development. Various approaches to identification can be found in Chapter 1. Although the points of view are not all the same, this divergence broadens the perspective of the planner.

DEFINITION AND COMPONENTS OF CURRICULUM

Before we discuss these components, it is important that the definition of curriculum as used here be clarified. *Curriculum* refers to the intended learning outcomes (Johnson, 1977). *Instruction* or *instructional system* refers to the techniques used to achieve these outcomes. Under this system will be found teaching strategies, teacher behaviors, and organization of the environment.

The components for designing the curriculum/instructional system should be as follows:

Component 1: *Decide for what strengths and/or weaknesses you are planning.*

This decision is made after an analysis through identification and profile development has been made using the working definition of this chapter.

Component 2: *Decide what curriculum objectives you plan to meet.* These are your intended learning outcomes and they should coincide with general educational goals and goals for education of the gifted.

Component 3: *Decide how you plan to evaluate your objectives.* Evaluation here includes both objective and subjective evaluation.

Component 4: *Decide how you plan to meet these objectives.* This is the instructional system and includes teaching strategies as well as organizational environment.

The task for us in developing the instructional environment for gifted children with unique needs is to take into account the strengths and weaknesses of the individual, the concepts of the particular curricular area (that is, the relationship of each concept to the other—whether prerequisite or independent of each other), and then proceed to provide an instructional environment that will allow vertical-diagonal and horizontal-diagonal progression.

Component I

A student or group of students who could be classified under one of the variables may present identification profiles that show above average strength in some areas and weaknesses in the others, as in Figure 1.

Name: *John Doe*

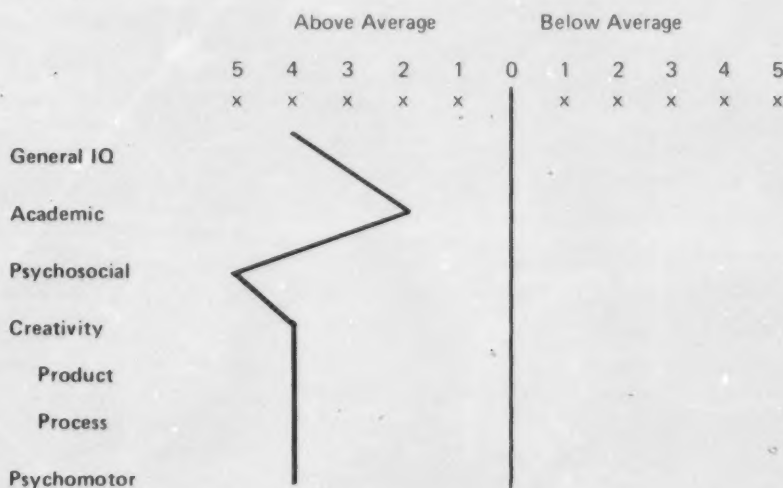


Figure 1. Sample Student Profile

Figure 1 reveals that this student shows a marked weakness in the academic area. Further investigation of the subtest scores should be made. This investigation might reveal, for instance, a low reading but high math subtest that would account for low scores. On the other hand, however, the student might be under-achieving on all subtests. This student rates very high in the psychosocial domain and rates well in the creative and psychomotor domains. In order to assess the student's preferred learning mode, an instrument such as the one on learning

styles that was developed by Renzulli and Smith (1974) could be used. This student might prefer independent study instead of group activities.

Peer and community assessment might reveal that this student performs outstandingly in church related activities or in community clubs. Other advanced skills such as weaving, painting, and designing might be quite evident in the community but unknown at school. Identification matrices such as those developed by Baldwin (1977) or the Fairfax County School System (1976) will assist in profile development. The Structure of Intellect Learning Abilities Test (Meeker, et al., 1975) is also valuable in developing a profile.

Component 2

The curriculum establishes parameters for instructional decisions. When I speak of curriculum I am referring to the facts, concepts, generalizations, and theories that we want these students to know and understand. It can be argued that these are objectives for all children but the quantity and quality of each individual's repertoire of knowledge will depend on the individual's capacity *plus* the environmental inputs.

Before I go further, I think it is important to explain that our goals for the population concerned here are both cognitive and affective in nature. It is imperative that we plan precisely for these children because we have assumed that there are gaps in their previous school training and new plans should involve them in a vertical movement in acquiring knowledge while involving them in a horizontal movement where they increase depth of knowledge.

Objectives should be set with varying levels of specificity. Level 1 objectives should be general and should follow the national goals closely. Level 2 objectives should be more specific and directly related to the particular curriculum area, e.g., math, reading, etc. Level 3 objectives are terminal or end objectives for a particular section of work. A series of evaluative behaviors, which will indicate attainment of these objectives, are listed at Level 3. Level 4 objectives are more specific and are related to the teaching strategies. Objectives at Levels 3 and 4 are subject to frequent change, whereas objectives under Levels 1 and 2 tend to be more constant.

Level 1 objectives can be reached through any of the curriculum areas but, before objective setting for Level 2 begins, it is important that the planner understand the structure of the particular curricular area. An excellent outline of nine curricular areas can be found in Chapters 7 through 16 of Michaelis' *New Design for Elementary Curriculum and Instruction* (1975). As an illustration of Level 1 and 2 objectives, the following examples have been chosen:

Level 1: To develop economic efficiency.

Level 2: To develop the ability to use computational skills in problem solving.

The Level 2 goals selected are from Michaelis' outline of the math curriculum

area: "Problem Solving. Estimation, prediction, approximation, strategy, analysis, induction, deduction, generalization, representation, models, probabilities, error, interpretation, definitions" (p. 266).

After the Level 2 objectives have been established the planner is then ready to develop the terminal objectives with their evaluative behaviors (Level 3 objectives).

Component 3

Evaluation might appear to be the antithesis of a program for the gifted but, realistically, it is crucial that data on changed behaviors be available for continual program adjustment and justification.

A list of evaluative behaviors serves as a guide to the teacher who is planning teaching strategies. A selection of two or more of the behaviors listed by the student and teacher after participation in class activities serves as an evaluation or guide to further planning. The behaviors are selected according to the student's diagnosed strengths or weaknesses and the type of class activities. If a student was diagnosed low in academics but high in leadership, the objectives developed might capitalize on his or her leadership ability by using a behavior that draws on, or is inspired by, this ability. For instance, Johnnie might be assigned an evaluative behavior test item that requires him to organize a field trip and complete the mathematics involved in such a venture (see examples in Table 1). These behaviors should follow the guidelines for writing behavioral objectives and also reflect various levels and kinds of educational objectives as suggested by Bloom and associates (1956) in the cognitive and affective domains. These behaviors should also reflect the intellectual processing abilities as suggested by Guilford (1971). In Table 1, 10 evaluative behaviors are included but the planner can use any number deemed necessary. It is important to remember that more than one behavior should be listed for subsequent use in evaluation.

To further clarify this process of evaluating the Level 3 objective, the terminal objective will be attained when the student can fulfill the required behavioral conditions of one or more of the choices listed under evaluative behaviors. This process has the advantage of using many criteria for assessing the progress of the gifted child.

Table 1 gives an example of a Level 3 terminal objective and its evaluative behaviors for our John Doe student. Behaviors listed in Table 1 are not teaching strategies; they are evaluative behaviors.

Component 4

The instructional environment to be developed from these goals is the crucial element in this delivery system. Here is where the difference lies. The students who have been identified under the operational definition will come to the

Table 1
A Level 3 Terminal Objective and its Evaluative Behaviors

Level 3 Objective: The student will be able to understand the application and computation involved in percentage as shown by the ability to:

1. Rename a ratio as a percent with 90% accuracy out of a list of 20.
2. Relate accurately the meaning of reported percentages from a political poll including data on three or more items.
3. Rank order the free throw shooting percentages of the top ten NBA Professional Basketball Players with 100% accuracy.
4. List and justify logically similarities in a prototype problem such as the following:
 A poll was taken in school from two groups of children. Use your knowledge of % to show similarities.

	Yes	No	Undecided
Group A	25	50	25
Group B	3	6	3

5. Describe accurately what a 110% effort means mathematically.
6. Solve a list of 10 equations of the following type with 90% accuracy. What number is 15% of 50?
7. Convert the given batting average of Willie Mays to a percent.
8. Explain the implications in a given situation for the average banker and consumer of a 5% increase of interest on loans from the bank. (Minimum of three implications)
9. Compute the ratio of boys or girls to a class, school, etc., with 100% accuracy.
10. Compute accurately the interest on a purchase using times that are less or greater than a year with 95% accuracy on a list of five problems. (Select two or more)

program with deficits in certain areas. These deficits are often in academics but are also found in the areas of creativity and social awareness. The task, then, is to develop teaching strategies that take into account students' diagnosed strengths and weaknesses (see Figure 1), being ever mindful that these children have the capacity but they need the skills and attitudes that will allow them to unlock their potential. According to Newland (1976) a good teaching method

depends upon the particular constellation of factors at any given time: the nature of the social situation in which the learning is occurring or is to occur, a composite of the characteristics of the teacher... a composite of the characteristics of the pupils doing the learning (what they bring to the learning task in terms of their potentialities, their prior learnings, their motivation, and their social-emotional adjustments... (p. 154)

Newland's observation highlights the importance of organizing the expected or evaluative behaviors (Level 3) in such a way as to create flexibility in planning and organizing the appropriate combination of strategies (Level 4). The Level 4 objectives emerge from and depend on the teacher's personal delivery system,

the planned activities, and the environment in which the children work. All of these fall in the category of strategies. Will the teacher's delivery system be, for example, didactic, autocratic, inductive, or facilitative? Will the activities involve projects, field trips, tutors, or contracts? Will these activities occur in an open class (Baldwin, 1977b), at learning centers away from the home base school, in self contained classes, or in multiaged groupings? The combination of activities will depend on the student(s) involved, the Level 1, 2, and 3 goals, and the restrictions of the environment.

Teaching strategies should be designed to include experiences that prepare students to exhibit the evaluative behaviors listed in Table 1. This list will vary according to the teacher's creativity and resources. Williams' (1970) model of teaching strategies; Joyce and Weil's (1972) teaching models; and Sisk's (1976) suggestion for teacher behaviors will be helpful for the planner. An example of how teaching strategies can be planned to help attain the goals is found in Table 2. Remember, the terminal goal is that the student will understand the application and computational skills involved in percentage.

Table 2
Planning Teaching Strategies To Help Attain Goals

I. Teaching Strategies

Time element: *1 month*

Curriculum area: *Math*

Content format: *Unit*

Topic: *Finance*

A. Students will develop a mini economic system.

Teams or individuals will "establish" a business such as a market, loan company, bank, employment agency, etc. Each business will develop its own bookkeeping system and prepare for the business week when the student participants must buy and sell their wares and figure the *percent* of profit, markup, loss, etc.

Processes

INVESTIGATION—through interview, research, and group questioning.

ANALYSIS—through study of effects of economy on prices.

EVALUATION—through survey of target market and the development of advertisement.

SYNTHESIS—through group work to create a business community which needs each business for survival.

Miscellaneous activities: Games—Monopoly, Stock Market

B. Students will develop skills in the fundamental algorithm for calculating percent.

Large and small group lessons by teacher—one to one lessons with teacher, another student, or outside tutor.

Processes

MEMORY—of equivalents i.e., .5 is equal to 50%.

CONVERGENT PRODUCTION—Solving computational problems and word problems.

- C. Students will develop gain and loss schedules for selected businesses.

Hypothetical information will be given as a case study and students will use knowledge to find the percent of gain or loss and hypothesize about the reasons for change.

- D. Students will design predictions for the business community based on data given in case study.

Processes:

PREDICTING

EVALUATING

- E. Study examples of the use of percentage in sports, business, education, health, and government.

Processes:

APPLICATION

ANALYSIS

II. Organizational Environment

The open space classroom

Learning centers developed by teacher and students

Space provided for shopping mall

Multilevel or self contained class grouping

Some other examples of organizational prototypes and specific activities for Level 4 objectives follow.

I. Activities

- A. Working on committees in both leadership and shared responsibility roles.
- B. Working on committees that share the responsibility for the whole class's learning.
- C. Running for student body offices.
- D. Participating in community groups.
- E. Developing arts, crafts, and hobby skills.
- F. Taking industrial field trips and trips to institutions of higher learning.
- G. Learning about community services and local government functions.
- H. Developing career projects and avocation interests.
- I. Simulating product development and promotion.
- J. Reading Junior Great Books.
- K. Reading Oriental, Spanish, Indian, Black, etc., folk stories.
- L. Writing creatively.

- M. Studying melodic themes in symphonic movement, jazz, other ethnic music.
- N. Teaching each other and/or studying another language.
- O. Modeling, copper enameling, sculpture—wood or clay, whittling, macrameing, crocheting.
- P. Webbing. Webbing can be done by the planner or in concert with the students. The idea is to select a central topic and from that, generate ideas that could serve as process and product vehicles for the gifted student. The following sample gives the planner an idea of the many subtopics that can be generated. Students can work in groups or as individuals.

It is not expected that all of the topics will be finished. The number and time limit is left to the teacher. Other sample starter topics for webbing are:

1. Journeys
2. Rivers

(See Figure 2).

II. Organizational prototypes

- A. Intervention team—evaluates, plans, and provides necessary techniques and materials to work with student.
- B. Tutoring—assistance through remedial specialists.
- C. Buddy, Big Brother or Sister—on a regular basis before, during school, or after school.
- D. Contract system—to stipulate requirements between learner and teacher.
- E. Special group meetings—peer group activities.
- F. Special classes—for those gifted underachievers or children who have a need for many prerequisite skills.
- G. Open classroom—provides profusion of materials and an opportunity to work in large and small groups.

The teacher becomes the facilitator and resource in the classroom and at the end of this activity he or she should refer to the terminal objective(s) of Level 3 for this unit and select appropriate evaluative behaviors for the student.

The following behaviors were selected from the list in Table 1. These behaviors were considered most appropriate for our John Doe student. The behaviors selected were items 4, 5, 6 and 8. Item 4 was selected because John showed divergent strength. Items 5 and 6 were selected because there was a need for skill development. Item 8 was selected because of concern for the

student's ability to understand implications. The variability in student needs will be tremendous; therefore, these illustrations are examples only.

Renzulli (1977), in his Curriculum Triad Model, discusses type 1, 2, and 3 activities that take the student from brainstorming activities to product development, and from being consumers of information only to producers of information. We might only succeed in helping this student to become an excellent consumer but we should expect him to become a producer.

Teacher planning for these activities can be done during an inservice workshop program during the school year or during the summer. It is suggested that a card file of activities cataloged under different headings be kept and used as a resource for all teachers.

A format chart for the aforementioned examples is given in Table 3.

Table 3
Sample Format for Math Objectives—Grade Level, Intermediate, and Above

Level 1	Level 2 Math	Level 3 Evaluative Behavior	Level 4 Teaching Strategies
1. To develop economic efficiency.	1. To develop the ability to use computational skills in problem solving.	1. The student will _____ as shown by the ability to: a. _____ b. _____ c. _____ d. _____	1. Unit on % in businesses a. _____ b. _____ c. _____ d. _____ 2. Financial statements a. _____ b. _____ c. _____ 3. Skill development a. _____ b. _____ c. _____
	2. To develop the ability to use statistics, probabilities, and equations.	2. The student will _____ as shown by the ability to: a. _____ b. _____ c. _____ d. _____	4. Skill development in obtain, mean, mode, range, and normal distribution. a. _____ b. _____ c. _____ d. _____

Table 4
The Most Common Descriptors for Children Affected by Cultural Diversity, Socioeconomic Deprivation, and Geographic Isolation
(Copyright by Baldwin, 1977)

Descriptors	External and Internal Deficit	Possible Environmental Causality	Exceptional Characteristics To Look For	Intellectual Processing Ability Indicators	Horizontal/Vertical Program Adaptation
1. Outer locus of control rather than inner locus of control.	1. Inability to attend to task without supervision.	1. Discipline does not encourage inner locus of control. Child is directed to follow directions. Tradition dictates strict adherence to directions.	1. Academic-retentive memory.	1. Convergent production of semantic units.	1. Contract activities-directed level development—counseling for trust—skill development.
2. Loyalty to peer group.	2. Inability to externalize behavioral cues.	2. A need to belong. Empathy for those in similar situation.	2. Psychosocial sense of humor; intuitive grasp of situations; understanding of compromise.	2. Affective behavior—possible indication of convergent production of behavioral units or classification.	2. Group activity debating—counseling seminars—philosophy, logic—process and skill development.
3. Physical resiliency to hardships encountered in the environment.	3. Inability to trust or consider "beauty" in life.	3. Environment dictates need to survive. Anger and frustration increase animalistic desire to survive. Alternatives, solutions are forced.	3. Creative—tolerance for ambiguities; insight; inventiveness; revolutionary ideas.	3. Divergent production.	3. Creative activities—counseling—mentor relationship—process/skill development.
4. Language rich in imagery and humor rich with symbolism; persuasive language.	4. Perhaps only avenue of communication—standard language skills not used.	4. A need to use subterfuge in environment to get message across—a lack of dominant language skills—a need to fantasize through language—acute awareness of environment due to its effect on individual.	4. Creative fluency, flexibility, ability to elaborate, originality. Academic-retentive memory, ability to think systematically.	4. Divergent production of semantic classifications, systems relations, and transformations; fluency of thought evaluation of behavioral implications.	4. Writing and speaking emphases—debating—rhetoric analysis. Contemporary and historical literary comparisons. Literary product development.
5. Logical reasoning; planning ability and pragmatic problem solving ability.	5. Opinions disallowed in school situation.	5. Early responsibility related to survival.	5. Thinks in logical systems, uncluttered thinking, insightfulness, understanding cause and effect.	5. System analysis; decision making skills.	5. Exposure to systematically developed strategies for solving problems; logic.
6. Creative ability.	6. Lack of directed development of ability.	6. Need to use items of environment as substitute e.g., dolls, balls out of tin cans, wagons, sleds out of packing boxes; dolls out of "corn husks."	6. Flexibility of thinking, fluency, special aptitudes in music, drama, creative writing.	6. Divergent production of symbolic transformation, flexibility of thought.	6. Special classes in creative aptitudes, independent study, mentor, process, and content skills development.
7. Social intelligence and feeling of responsibility for the community; rebellious regarding inequities.	7. No opportunity to exercise behavior in community without censorship.	7. Social reforms needed to help community; high regard for moral obligation to fellow man; religious influence; tradition; survival dictates awareness of social elements related to survival.	7. Intuitive grasp of situations, sensitiveness to right and wrong.	7. Affective domain, Kohlberg's upper levels of moral development.	7. Leadership Seminars Community Service Participation—counseling, historical antecedents. Process and content skills.
8. Sensitivity and alertness to movement.	8. Lack of training and development.	8. Need to excel, toughness of environment, family emphasis on physical prowess to substitute for lack of educational input.	8. Hand-eye coordination, physical stamina, skilled body movements.	8. Divergent production, convergent production of behavioral implication.	8. Special developmental classes, olympic participation, physical culture classes.

*Information from research with Indian children. Memory of symbolic implications, memory of symbolic units, convergent production of figural units, divergent production of symbolic relations (Meeker, 1977).

SOME DESCRIPTORS TO CONSIDER IN PLANNING

Along with the mechanics of planning as discussed in the preceding section, it is important for the planner to become aware of some descriptors that can serve as clues for identification as well as planning.

It is difficult, as Gallagher (1975) pointed out, to specify characteristics that are generalizable to all gifted children and just as importantly, it is equally difficult to formulate a composite that specifies the characteristics of children affected by cultural diversity, socioeconomic deprivation, and geographic isolation. From research by Bruch (1971), Torrance (1971), Meeker (1977), and observation schedules by teachers, it is indicated that there are some characteristics that are found most often among children affected by this tripod classification. These characteristics or descriptors represent the functioning level behaviors only.

An analysis of these descriptors reveals that some show educational deficits and others show intellectual processing abilities at high levels. The most common descriptors are included in Table 4. Included in this list of the most common descriptors are corresponding external and internal deficits, possible environmental causality, exceptional characteristics to look for, intellectual processing ability indicators, and horizontal/vertical program adaptation.

The information given in the preceding sections serves as a framework for planning. It is inadvisable that a "packaged" program or plan become sanctified as the answer to a specific classroom or group need. The combination of ideas into the whole is the important thing.

CONCLUSION

What is the difference? There is no magical formula that will fit all children of this grouping. The secret lies in the awareness of causal factors, the perception of behaviors indicative of giftedness, and systematic planning that capitalizes on the strengths while at the same time plans for vertical progression for weaknesses. This planning does not revolve around remedial work for deficits, but around supplying environmental stimulus that will unlock the potential ability of the child. The content vehicle for unlocking this potential should wisely reflect the traditions and familiarity of the culture and the environment. A caveat at this point would be that inclusion of familiar reference points in content does not mean exclusion of unfamiliar reference points because herein lies the danger of closing or limiting the trajectories for growth.

BIBLIOGRAPHY

- Baldwin, A. Y., & Wooster, J. *Baldwin identification matrix inservice kit for the identification of gifted and talented students*. Buffalo NY: D.O.K. Publishers, 1977.

- Baldwin, A. Y. Tests do underpredict too: A case study. *Psi Delta Kappan*, 1977, 58(8), 620-621. (a)
- Baldwin, A. Y. The open classroom for the gifted child: Operable or inoperable. *The School Administrator's Association of New York State Journal*, 1977, 7(1), 6-7. (b)
- Bloom, B. S., et al. *Taxonomy of educational objectives: Handbook I: Cognitive domain*. New York: David McKay Co., 1956.
- Bruch, C. B. Modification of procedures for identification of the disadvantaged gifted. *Gifted Child Quarterly*, 1971, 15, 267-272.
- Bruch, C. B. *The ABDA: Making the Stanford-Binet culturally biased for black children*. Athens: University of Georgia, 1972. Unpublished manuscript.
- Ebel, R. L. Educational tests: Valid?, biased?, useful? *Psi Delta Kappan*, October 1975, 82-88.
- Fairfax County Public Schools. *Multi-dimensional screening device (MDS)*. Fairfax VA: Fairfax County Public Schools, 1976.
- Gallagher, J. *Teaching the gifted child*. Boston: Allyn and Bacon, 1975.
- Guilford, J. P. *The nature of human intelligence*. New York: McGraw-Hill, 1971.
- Johnson, M. *Intentionality in education*. Albany NY: Center for Curriculum Research and Services, 1977.
- Joyce, B., & Weil, M. *Models of teaching*. Englewood Cliffs NJ: Prentice-Hall, 1972.
- Marland, S. P., Jr. *Education of the gifted and talented. Vol. 1, Report to the Congress of the United States by the US Commissioner of Education*, 1971.
- Meeker, M. *Identifying gifted Navajo children in reservations—Interim report from SOI Institute*. El Segundo CA: SOI Institute, 1977.
- Meeker, M., Mestyanek, L., Shaddock, R., & Meeker, R. *Structure of Intellect Learning Abilities Test*. El Segundo CA: SOI Institute, 1975.
- Mercer, J. Discussion presented at Second National Conference on Gifted and Talented, New Orleans LA, January 1977.
- Michaelis, J. *New designs for elementary curriculum and instruction* (2nd ed.). New York, 1975.
- Newland, T. E. *The gifted in socio-educational perspective*. Englewood Cliffs NJ: Prentice-Hall, Inc., 1976.
- Renzulli, J. *The enrichment triad model: A guide for developing defensible programs for the gifted and talented*. Westerfield CT: Creative Learning Press, 1977.
- Renzulli, J. L., & Smith, L. *Learning styles inventory*. Storrs: University of Connecticut, 1974.
- Rivers, W. L., Mitchell, H., & Williams, W. IQ labels a liability: Effects on the black child. *Journal of Afro-American Issues*, Winter 1975, 63-76.
- Sisk, D. *Teaching gifted children*. South Carolina: Federal Grant, Title V, 1976.
- Smilansky, M., & Nero, D. A longitudinal study of the gifted disadvantaged. *Educational Forum*, March 1975.
- Stallings, C. Gifted disadvantaged children. *National Leadership Institute Teacher Education/Early Childhood*. University of Connecticut Technical Paper, March 1972.
- Stanley, J. Predicting college success of educationally disadvantaged. *Science Magazine*, February 1971, 640-647.
- Torrance, E. P. Are the Torrance Tests of Creative Thinking biased against or in favor of "disadvantaged groups"? *Gifted Child Quarterly*, 1971, 15, 75-80.
- Williams, F. E. *Classroom ideas for encouraging thinking and feeling*. Buffalo NY: D.O.K. Publishers, 1970.

4. Within the Community and Its Schools

Gayle Haywood Gear

□ Programs for exceptional children are firmly established in public schools across America. While services have vacillated from special classes to mainstreaming, the commitment to accommodating the unique learning needs of exceptional children has remained steadfast. Unfortunately, most efforts have concentrated on children with lesser ability while the gifted and talented, also exceptional children requiring specialized curricula and services, have often been overlooked. Tannenbaum (1972) described a vain search in the forties for durable programs for the gifted and talented. He concluded, "This modest but abortive investigation taught us a lesson that has been reinforced over and over again ever since: namely, that special provisions for the gifted are primarily luxuries rather than necessities in the educational enterprise" (p. 16). If this is accurate in general, how much more must it be true of "disadvantaged" communities.

How can special education programs for the gifted and talented achieve the status of being a necessity? The answer may reside within the community and its schools. This chapter attempts to explore the factors that affect the success of programs for gifted children from unique cultures, geographic environments, and socioeconomic backgrounds. Emphases have been placed on community awareness and participation, on inservice training of regular school personnel, and on the unique role of the program coordinator and of the school counselor. Proper mixing of these ingredients is a recipe for curriculum cake, not for icing; icing will, according to Tannenbaum, be discarded "when interest in the gifted tapers off" (1972, p. 23).

There are many forces that hinder talent development among children in poor communities. Writers have cited poverty of stimulation in the school program (Wolfle, 1960), lack of money for college (Stalnaker, 1961), the "talent will out" attitude (Havighurst, 1957), and little encouragement from the family (Pressey, 1955). These conditions can be devastating for potentially gifted and talented children.

What can be done within the community and its schools to further the development of gifted and talented children? First, there must be an understanding of the community and of how its members can contribute to this development.

WITHIN THE COMMUNITY

A community may be characterized as "disadvantaged" because of geographic, economic, and/or cultural conditions. This type of community offers, nonetheless, a rich historical, cultural, and economic heritage. Also, in such communities there are individuals and groups who strive toward civic improvement. Successful programs of any kind reflect an attitude of appreciation for the community and for the opportunities it can provide.

A rural West Virginia community, described in a census report as economically depressed, provides a good example. Its citizens did not respond to the notion of a "special program" for their able children. Initially, they were reluctant to endorse a program that might lure their children away from them and from their homes. Parents and local citizens, however, did respond favorably when they saw that the program goals were to encourage children to appreciate their heritage and to realize their responsibility toward the improvement of economic and social conditions.

This conflict was easily resolved, but others are more difficult. For example, problems are often encountered when school personnel are not residents of the community or when teachers do not share the community's values or aspirations. Inner city programs, especially, experience these problems for which there seem to be no simple remedy.

Therefore, program planners should gather extensive information about the community. This information provides a knowledge base for the program so that it will develop, thrive, and ultimately serve the purpose of talent development. In effect, the program must acknowledge the worth of the community and the contributions of the citizenry. This challenge requires program planners who care for the community, who can communicate effectively with community members, and, certainly, individuals who are sensitive to the unique problems encountered by precocious children from disadvantaged backgrounds.

Recognition of Special Needs of Gifted Children

Public awareness of the special needs of gifted children is critical. Within the

community, selected individuals need to interpret the mission of gifted child education. The message must be clear to all segments of the community: parents, school personnel, area businessmen, civic and government groups. A Madison Avenue production is not necessary; what is necessary is a sincere effort to communicate the role, the goals, and the benefits of special provisions for gifted and talented children. After a preliminary investigation, which should reveal key people and groups, it is necessary to study the community, and with all of the information obtained, to reevaluate and ask: Who needs to understand gifted child education? How can this information be conveyed most effectively to these people? Which groups (e.g., civic, government, church) can serve as forums for discussing the needs of children with great potential?

The forums vary. In some communities, the agricultural extension service should be involved; in other communities, extensive public welfare programs are likely sources of help. In many communities, the church should be consulted for assistance. For example, in an ESEA Title IV-C program in rural Alabama, liaison was established with the church ministry. The program director, who was sensitive to the distrust of "new" programs, worked with the significant leaders of the communities, i.e., those who had achieved public trust. In this case, these were the church ministers. Thus, community awareness activities consisted of numerous informal discussions with these individuals. Later, the program was introduced more formally through parent seminars, PTA meetings, and news releases. The program director stated that the groundwork was laid first with those individuals who had demonstrated their concern for the welfare of the community. He maintained that church leaders provided a legitimate forum for these discussions and that information derived from these discussions served later as a useful guide for program planning.

In another example, it can be seen that one can even form a powerful advocacy group. In a rural West Virginia community, the residents were generally unaware of the human resources in their schools and in their community. A school counselor dedicated months in search of gifted children; he spent hours discussing the plight of the precocious child. Libraries, he revealed, were non-existent in schools; within the community, they were woefully inadequate. The curriculum was barren. Remediation was a standard diet made available by federally funded projects. The loss to their community, he stated repeatedly, was real, but it could not be appraised. While some ambitious students resorted to leaving the community, most stayed with little hope of advancement. The counselor, working alone, brought change. His discussions with apathetic and occasionally hostile board of education members resulted in the initiation of the first formal program for gifted and talented children in rural West Virginia. His strongest ally, interestingly, was the staff of the regional mental health center. The counselor provided the impetus and the center offered the necessary psychometric and counseling services for the identification of able youth. Within the schools, a formal program was soon developed. Later, parents, civic

groups, and local media took an active interest in the achievements of this program. At this writing, the program endures and serves hundreds of gifted and talented children in rural West Virginia.

Excerpts from the leaflet, "Speaking of the Gifted," follow.

QUESTIONS and ANSWERS . . .

Who are the "gifted and talented"?

Approximately 1½ to 2½ million children in the United States are gifted or talented; this estimate represents three to five percent of the school age children. These youngsters are capable of outstanding achievement in the academics or the arts. This generally accepted definition recognizes a variety of talent; thus, the terms gifted and talented include the potential prima ballerina, olympic gold medalist, noted composer, nuclear physicist, or revered community leader.

What are these children like?

Gifted children are much like all children, but differ in several important ways. Physically, the gifted are as able as typical children, although gifted children tend to be precocious in walking and general physical development. Precocious behavior is also evident in their social development. Gifted children will seek older friends and have more advanced interests and concerns. And finally, the gifted are advanced in academics: they have a zest for discovery and learn quickly. These children are usually most advanced in reading and least advanced in spelling and penmanship.

How are gifted and talented children identified?

Schools rely on a variety of screening methods: teacher and parent referrals, intelligence test scores, and/or demonstrated achievement in the arts. Such information is reviewed by a planning and placement team; recommendations are made concerning the most appropriate program which will meet the educational needs of each youngster. The intent is not to award membership to the category of "gifted and talented"; rather it is to assign necessary instruction and services to children.

What is the best program for the gifted and talented?

Programs vary with communities. The "best" program is one which meets the needs of gifted and talented children. Special classes, resource rooms, independent study, or enrichment classes can be successful if each provides children the encouragement and the opportunity for advanced study. Thus, local schools are advised to tailor their programs to the communities and the children they serve.

Before one can ask for assistance of any kind, one must be prepared to explain why special provisions are needed for gifted children. The public must

first understand and accept the idea; only then is it possible to move forward to direct involvement of individuals and groups. Pertinent information can be disseminated via television, radio, and newspaper. Leaflets can be prepared for PTA meetings, for discussion with business leaders, and/or for use by church and civic groups.

For example, a slide/tape series was prepared for use by school and civic groups in Alabama in an effort to achieve community awareness. The 15 minute production, *Commitment to the Gifted and Talented: Our State's Story*,¹ is accompanied by a leaflet explaining the major issues. The slide series and leaflet are simple and direct. In combination, they address the very basic questions: Who are the gifted? How are they identified? What are they like? Why do they need special provisions? What is the best program, and, finally, what can parents, teachers, and community members do?

Identification-Talent Search

Various agencies within the community exist to protect the welfare of its citizens. Members of these agencies can assist in the identification of children with potential talent in the arts or in academics. For example, hospitals, clinics, mental health centers, and welfare agencies often have access to children prior to school entry. Physicians, social workers, and public health nurses can be helpful in the identification of precocious youngsters. They can offer valuable counsel to parents and to the school community concerning the unique problems faced by these children. Because the early years are crucial, ways should be found to intervene during preschool years in as many areas as possible. The enlistment of members from existing agencies could extend the capacity to identify earlier those children who will require, in many instances, early and intensive stimulation. This is particularly crucial for gifted and talented children who reside in disadvantaged communities.

The Child Advocacy Committee of the Alabama chapter of the American Academy of Pediatrics provides an appropriate illustration. Members include Academy members and representatives from institutions of higher education, from governmental agencies, and from civic groups that provide child care services. Presently, the Committee is attempting to determine methods it can use to recognize gifted children and to encourage talent development within local communities, both urban and rural.

In conjunction with this effort, a booklet for parents was prepared, entitled *The Precocious Child: The Preschool Years*.² It is expected that this useful

¹Slide/tape presentation may be obtained from: Alabama State Department of Education, Program for Exceptional Children and Youth, State Office Building, Montgomery, Alabama.

²The booklet may be obtained from the Program for Education of the Gifted and Talented, School of Education, University of Alabama in Birmingham, Birmingham, Alabama 35294.

reference will be readily available in all doctors' offices, particularly in the offices of family practitioners and pediatricians. Both the physician and the parent are being asked to participate in the early recognition of precocious children. Also, they are urged to respond to the unique needs of these youngsters.

Community Involvement

Community involvement is often stressed when considering special education (Gallagher, 1975; Passow, 1972). "The entire community, not the classroom alone, must become the locus for learning," states Passow. He continues, "Not only will this extend opportunities for learning but it could, at the same time, alter the climate for learning—the attitudes toward unusual talents and their development" (1972, p. 30). In a rural school program for gifted children which was comprised largely of minority children, the classroom included the community and its surprisingly rich store of talent and resources. Various agencies, such as the public health department, the soil conservation service, the local hospital, and the medical laboratory extended the program beyond the traditional school walls and involved the surrounding community.

It is indeed unfortunate when school officials, administrators, and teachers ignore a community's resources. It is easy to assume that a small or rural community does not have learning resources, but no assumption could be in greater error. Foxfire books are a dramatic example of the richness of the rural community. Another example is the publication called *Yellow Pages of Learning Resources*, published by the Massachusetts Institute of Technology Press. This book discusses the how and why of local resources. Some of the learning resources listed might escape many teachers: carpenter, cemetery, child, clergyman, construction site, electrician, gas station, junkyard, locksmith, lumberyard, money, next door neighbor, post office and postman, tree stump, vacant lot. Most of these resources can be found in even the most remote community. The intent is to appreciate community resources and to draw from available resources those which are valuable educational experiences.

Within large cities, an effort can be made to appreciate the heritage and the aesthetic nature of the built environment. In Birmingham, Alabama, for instance, several members of the Historical Society noted the "aesthetic anesthesia" of the residents of the community. They felt that interest was limited to antebellum architecture and that it overlooked the compelling beauty of many of Birmingham's historic downtown buildings. They secured a grant from the National Trust for Historic Preservation and developed curricula and guidebooks of Birmingham for inclusion in special classes for gifted children. They hoped to "foster a heightened appreciation of Birmingham's heritage, and a more sensitive treatment of the architectural heritage by future politicians, businessmen, and others to whom responsibility for historic preservation will

pass." *Operation: Old Birmingham*³ heralds a vital city, one which needs its talented citizenry.

A striking example of what can be done with community involvement is the project undertaken in Thousand Islands, New York. Each summer the community is besieged with visitors, vacationers who wish to enjoy the weather or to view the beauty of the St. Lawrence Seaway. The children in this area were frequently snowbound during the winter months, and they became interested in the history and in the beauty of their area. They had questions to ask and community residents were ready to answer them. *A Child's Guide to Thousand Islands* was researched, prepared, and written by children in the special program for the gifted. Hart Island became a mystery solved, the surrounding waters revealed international intrigue, and the secret of the famous Thousand Island dressing was unraveled.⁴

The educator should not necessarily presume success as great as that of the Foxfire collection or of the Thousand Islands project. Moreover, it should be mentioned that few successes come without some failures. There are resources in the community that will not be offered to the educators. The local grocery store owner may not wish to reveal cash flow and markups. Yet, there are those who will assist. This point must not be overlooked: The community must be studied; resource people and groups who are likely to be able to assist in programs for gifted and talented children must be identified. These people can assist in early identification, offer insight into the unique problems confronting these children, and may also be able to counsel parents. The school is not the only, and possibly not even the most important, influence in the lives of gifted and talented children. Community members may assist formally in programs, serve on advisory boards, and/or may prefer to work behind the scenes. The impact of community influence can be substantial. Community response to the needs of gifted and talented children can help insure long term provisions for special programs.

In brief, the theme is encouragement. Wolfle (1960) illustrated the lasting impact of encouragement on several individuals. He speculated, "There must be many other eminent men and women who could tell similar stories: bright, industrious students . . . whose sights were lifted by a teacher or an older friend who took the trouble to encourage talent" (p. 537). The community can encourage and, thereby, further talent development among its youth. Encouragement from the community can take these forms: (a) recognition of the special needs of gifted and talented children; (b) identification of these children; and (c) community participation in programs for these children.

³The curriculum, *Downtown—An Outdoor Classroom*, is available from Jefferson County Historical Commission, 13 - 21st Street North, Birmingham, Alabama 35207.

⁴Mrs. Mary Forbes, North Jefferson County Committee, Alexandria Central School, Thousand Islands, New York.

WITHIN THE SCHOOL

Several individuals within the school are directly responsible to the gifted and talented child: the classroom teacher, the special education teacher/coordinator, and the school counselor. Each one can contribute to the talent development of children from disadvantaged backgrounds.

The Classroom Teacher

Frequently classroom teachers are superficially involved in programs for gifted and talented children. While they are routinely asked to refer possible candidates, they are seldom asked to contribute to curriculum development, counseling, and/or program evaluation. This seems unfortunate for teachers, who represent a wide range of abilities, talents, and interests, and who could offer valuable suggestions in these areas. Their involvement could improve the program and its likelihood for success.

Inservice instruction of the teaching staff is often recommended. According to the U. S. Commissioner of Education, "Successful programs show that special preparation of teachers is mandatory. Teachers who have such preparation tend to be sympathetic to the gifted and talented, and to provide them with the necessary learning opportunities" (Marland, 1972, p. 110). Teachers who serve children from disadvantaged communities need specialized inservice experience. According to Passow (1972), "Staff development is needed in terms of altering expectations with respect to identification and nurturing talent among the disadvantaged" (p. 30).

Gear (1978) reported significant improvement in teacher performance in the referral task following appropriate instruction. A 10 hour training program was designed to prepare teachers to refer gifted and talented children who reside in disadvantaged communities. The training was directed toward the following specific competencies:

- List and define terms common to the literature of education of the gifted.
- Discuss the impact of the environment on the development of children's talent.
- Recognize the importance of special education in the development of talents of the child of high potential.
- Compare former and more recent definitions of giftedness.
- Accept a broader range of talent within the definition of giftedness.
- Discuss one's personal definition of giftedness.
- Recognize the influence of society on the definition of giftedness.
- Evaluate a selection criterion based on the purposes of the special program.
- List several appropriate measures in selecting gifted youngsters.
- Accept the multicriteria approach in selecting gifted students.
- Discuss several issues involving intelligence testing.

- Evaluate the use of the IQ test in the selection of gifted students.
- Analyze personal sentiment toward the IQ.
- List several characteristics of the gifted child.
- Compare these characteristics to those of age mates.

Thus, through inservice programs, teachers can be taught identification skills as well as the rationale for special provisions for gifted children. A program of this nature should accomplish the following objectives:

1. To accept that gifted and talented children can be found in the classroom and that these children have special educational needs.
2. To understand and accept a definition of giftedness that includes a broad spectrum of talent in such areas as academics, creative and performing arts, and psychomotor ability.
3. To become knowledgeable of and sensitive to the behaviors of gifted and talented children.
4. To recognize the need for special curricula and services.

Evidence from research studies indicates that teachers who are given appropriate instruction are more accurate in their referrals. They are less likely to overlook the underachieving, the belligerent, or the apathetic student. Teachers with training are also less likely to nominate exclusively the "good" student, i.e., the one who is well behaved and school oriented. Another benefit of adequate preparation of classroom teachers may include changes in teacher behaviors. Such training may encourage teachers to allow and to nurture children's creative responses within the classroom. Teachers may become more aware of the positive qualities of their students and also more understanding of the underlying reasons for "misbehavior" of the precocious.

The Teacher/Coordinator

Teachers of gifted and talented children have been an occasional topic of investigation and a frequent topic of discussion. In brief, the ideal characteristics of these teachers have generally included the highest standards of excellence, emphasizing intellectual brilliance (Boston, 1975; Hildreth, 1970; Isaacs, 1966; Mirman, 1964; Ward, 1961), flawless personalities (Crow & Crow, 1963), and broad educational backgrounds and interests (Cohen & Coryell, 1935; Cutts & Moseley, 1965; Mirman, 1964; Rice, 1970; Witty, 1951). These listings extol the virtues of mankind and are, as Gallagher (1975) suggests, desirable for all teachers.

An extensive review of the literature concerning the desirable qualities and skills of teachers of the gifted reveals enormous demands (Donaldson, 1977). The two characteristics most often named are high intelligence, i.e., the capability of scoring at least one standard deviation above the mean IQ of the general population, and empathy, or a feeling of personal identification with gifted

individuals. The skills most often cited are knowledge of the psychology of gifted children, subject matter knowledge, and teaching expertise.

Are there skills unique to successful teachers of gifted children from disadvantaged backgrounds? Dorothy Sisk (1975), Director of the Office for the Gifted and Talented, believes the answer is yes. She cites the following abilities:

1. To develop knowledge of the educational, social, and emotional needs of the disadvantaged gifted student.
2. To diagnose the disadvantaged gifted student's educational, emotional, and social problems.
3. To demonstrate competencies in planning appropriate teaching strategies for the disadvantaged, such as movement lessons, problem solving sessions, encounter sessions, and simulated learning.
4. To utilize group dynamics in working with groups, to function as agents of change.

These competencies are best illustrated by a statement made by June Jones, a teacher who plans programs for gifted and talented children attending rural schools in Alabama. She describes the unique role of the teacher/coordinator:

The coordinator is responsible directly to and for the gifted child. He must respond to the gifted child with genuine warmth, not with awe or with flippancy. In some systems, he may be the only person to whom the gifted child can go to seek continual contact with people like himself. The coordinator may have to interpret the gifted child to his teachers, to his parents, and to himself. Along the way, he may open up new worlds of learning for the child to explore; he may help the child in his choice of career; he may help the child decide how much attention and how much privacy he may opt for; he may help him decide how much and what kind of stress he can take; he may assist the child in getting aid from the private sector; he may help the gifted girl decide whether or not to go to college or help the gifted boy from a low socioeconomic background stay in school. Essentially, the coordinator must not get so involved in developing a beautiful program that he fails to evaluate the program in terms of the children themselves. His concern for the children must always come first.

The tasks of selection and preparation of teachers/coordinators for their unique role in talent development among gifted children from these unique circumstances are demanding and complex. Indeed, many teacher training programs will readily concede that the essential personal qualities can be encouraged but cannot be produced. It is hoped that the strenuous demands of the profession will call forth the most caring and the most capable teachers, for the importance of their influence cannot be overemphasized. "It is the teacher who sets the environment which inspires or destroys self-confidence, encourages or

suppresses interests, develops or neglects abilities, fosters or banishes creativity, stimulates or discourages critical thinking, and facilitates or frustrates achievement" (Nelson & Cleland, 1975, p. 439).

The Counselor

Schools and school systems routinely employ counselors. The need and value of competent counselors remain unquestioned.

When gifted and talented students are from unique cultures, geographic environments, and/or socioeconomic backgrounds, their need for counseling is perhaps increased. They should be made aware that a socially negative factor does exist. They need, also, to understand that this difference is not cause for shame; in fact, it can be a source of pride.

Psychology suggests that a prerequisite to development of talent and potential is acceptance of one's self as worthwhile, i.e., a positive self image. As counseling continues, encouragement and support should be offered as positive reinforcement.

The following quotation from the conference report, *Talent Delayed—Talent Denied, The Culturally Different Gifted Child*, supports the idea that the first job of the counselor involves (a) helping the children become aware of a difference; (b) offering them support and encouragement; and (c) assisting them in the development of a positive self image.

A low self-concept and a built-in expectation of failure are often evident in minority children because of the systematic and long-term discrimination they and their families have experienced. Holt points out that labels such as 'deprived,' 'disadvantaged,' and 'culturally different' carry a connotation of dysfunction in the minds of some students and educators, and that this attitude is evident in the way the children are treated. When pupils are exposed to negative labels early in their development, they begin to believe them. One of their most important basic needs, self-esteem, is deadened or lowered. Consequently, these pupils do not feel secure enough in their own self-worth to develop their potentials, or to even believe that they are talented (Gallagher, 1973).

The job of the counselor does not stop after a positive self image has been developed. The counselor must call on the community and must alert its citizens to the needs of the students. In *Education of the Disadvantaged*, Silberman (1967) summarizes a success story involving a system's assistant superintendent. The task of educating the community was undertaken by this educator, Dr. Samuel Shepard, Jr. Dr. Shepard decided to take action against declining academic achievement, and over a 4 year period, the level of achievement progressed at an unusual rate. Shepard saw teachers' and principals' attitudes toward their students change from condescension to sympathy and challenge.

More importantly, Shepard implemented change in the community's attitude toward the school by maintaining a plan for frequent and systematic meetings and assemblies, field trips, pep talks, contests, and posters, all designed to build respect for learning.

For the parents, Shepard uses an extremely blunt approach. He shows them by slides, charts, and film strips exactly how poorly their children are doing and warns them that unless the children do better in school, they'll be no better off than their parents . . . He also explains at length how the school operates at each grade, what the parents should demand of their children, and how they can help (Silberman, p. 15).

Silberman also offers the following thought from Paul Ylvisaker: "A community which made its schools rather than its central business district the tender object and physical center of its urban-renewal operations would be taking one of the noblest and shrewdest steps forward in the civic progress of this century" (p. 15). The community is not going to view its schools as Ylvisaker suggests unless it is educated concerning the need. Therefore, the counselor must include community awareness as part of his or her total task.

PLANNING TOGETHER

Emphasis on involving a larger segment of the "education clientele" in selecting instructional goals for special education programs has increased. In planning for gifted children from unique cultures, geographic environments, and socioeconomic backgrounds, it is vital that the aims of these specialized programs be cooperatively developed. Thus, selected members from the community and its schools can plan together for gifted children using a process frequently called *needs assessment*.

An educational needs assessment is an attempt to identify educational needs so that instructional goals can be selected. In brief, this technique entails specifying the discrepancy between what is (the current level of student performance) and what should be (the desired level of performance). This discrepancy, the educational need, is then used to identify the priorities toward which an educational program should be directed.

For example, a local school administrator elects to develop instructional goals for a special education program systematically; he chooses to use the technique, educational needs assessment. First, he must assemble *preference data*, typically drawn from a variety of members from the community and its schools (parents, business leaders, representatives from civic groups, teachers, and students). Using this technique, participants discuss the goals they view as desirable for the program. They consider such topics as academic achievement, enhancement of self concept, and improved social adjustment. These discussions often reveal divergent views between various groups and between individuals.

Members then assign ratings (e.g., using a 5 point scale) to indicate the importance of each instructional goal. The school administrator, or program planner, thus obtains the preference data needed to rank order the instructional goals. It is not uncommon for different groups to assign disparate ratings. Furthermore, it is unlikely that a consensus will be easily reached on each instructional goal. The value of this activity rests primarily with its openness; people who are concerned with education assist with decision making in a very important phase of program planning, i.e., setting instructional goals.

Reaching agreement can be accomplished in numerous ways. For example, some feel that less formal methods are more appropriate and can be achieved by simple majority vote. Others offer more systematic methods to achieve agreement (e.g., Delphi Technique). A workable model designed for gifted education was developed by Lucito and Lee (1977). Participants are asked "What should be taught to the gifted?" and "Which areas of the curriculum do you think need improvement, and which of those areas are you willing to spend time to improve?" Systematically the items generated are rated on a 5 point scale, rank ordered, and the least important are deleted from the listing. This process is reiterated until 85% or more of the items have achieved an average or above rating (2.56) and also that 20% or more have achieved an above average rating (3.56). The technique used to reach formal agreement should be carefully chosen to accommodate the participants (groups) involved in the process.

Next, the program planner compiles data concerning the present status of the gifted and talented students on measures related to each objective. In many cases, discrepancies can be computed between performance standards and current student performance. This gap can be used to rank order the needs of students. Thus, a high need reflects a deficiency in the students' status with respect to the stated objective. Conversely, a low need indicates that the students' status is equivalent to the performance standard (e.g., predicted achievement).

Finally, decisions involving the instructional goals of the program can be made. The program planner reviews the preference data (the desired goals) and the actual education need (the discrepancy between the performance standard and the actual status). For example, in one situation, reading objectives might be selected because they comprise a *highly preferred* goal and also a *highly needed* one (the result of a large discrepancy between actual and performance standards). In another case, reading objectives might not be a priority because the students are not deficient in reading skills; however, the objectives remain a *high preference* goal.

Needs assessment is an important phase in planning educational programs for gifted and talented children. The model described accomplishes several objectives:

1. Provides for involvement of many groups and allows their representatives to express their views concerning goals and perceived needs.

2. Develops a data base for future educational decisions.
3. Pinpoints problems and defines verifiable goals.
4. Provides a basis for the allocation of limited resources to solve identified problems and needs.
5. Provides a basis for program development and evaluation.

Educational needs assessment does not offer instant solutions to setting educational goals, but it does afford the opportunity for many persons to participate in planning for gifted and talented children. The goals can be empirically derived and in many cases open to public scrutiny. Such goals can then guide program planning, implementation, and evaluation. Through educational needs assessment, selected members from the community and its schools plan together. The result is a "special program" for gifted and talented children.

CONCLUSION

To what end? What is the payoff? For the parent and the child, it is joy; to the gifted child, learning should truly be a joy, and special education for the gifted and talented can produce a happy ending—or a happy beginning. For the school system, the payoff is a smoother operation: more enthusiasm, fewer discipline problems, the development of better teaching techniques for the benefit of all students. For the community, the reward is satisfaction in the development and in the interaction of all its human resources. For the nation, the result is pride in its forthcoming intellectual leadership, for the pursuit of excellence in one area leads to the pursuit of excellence in other fields as well. What, after all, is the purpose of a democratic society? It must be to provide for the individual what he cannot provide for himself, and for the gifted child, this is special education.

REFERENCES

- Boston, B. Starting a gifted program. *Gifted and talented: Developing elementary and secondary school programs*. Reston VA: The Council for Exceptional Children, 1975. (ERIC Document Reproduction Service No. ED 117 886)
- Cohen, H., & Coryell, N. (Eds.). *Educating superior students*. New York: American Book Co., 1935.
- Crow L., & Crow, A. The teacher of the academically able. In L. Crow & A. Crow (Eds.), *Educating the academically able*. New York: David McKay Co., 1963.
- Cutts, N., & Moseley, N. *Teaching the bright and gifted*. Englewood Cliffs NJ: Prentice-Hall, 1965.

- Donaldson, C. *Essential competencies of teachers of the gifted*. Unpublished master's thesis, University of Alabama in Birmingham, 1977.
- Gallagher, J. *Talent delayed—talent denied, the culturally different gifted child*. A report of a conference held in Rougemont, North Carolina, September, 1973.
- Gallagher, J. *Teaching the gifted child* (2nd ed.). Boston: Allyn & Bacon, Inc., 1975.
- Gear, G. H. Effects of training on teacher-judged giftedness. *Gifted Child Quarterly*, April, 1978.
- Havighurst, R. J. Conditions favorable and detrimental to the development of talent. *School Review*, 1957, 65(1), 20-26.
- Hildreth, G. *Educating gifted children at Hunter College Elementary School*. Westport CT: Greenwood Press, 1970.
- Isaacs, A. A survey of suggested preparation for teachers of the gifted. *Gifted Child Quarterly*, 1966, 10, 72-77.
- Lucito, L. J., & Lee, D. W. *Developing working agreements to improve gifted education*. Unpublished paper, The University of Georgia, Athens, 1977.
- Marland, S. *Education of the gifted and talented*. Washington DC: US Government Printing Office, 1972.
- Mirman, N. Teacher qualifications for educating the gifted. *Gifted Child Quarterly*, 1964, 8, 123-126.
- Nelson, J., & Cleland, L. The role of the teacher of gifted and creative children. In W. Barbe & J. Renzulli (Eds.), *Psychology and education of the gifted*. New York: Irvington Publishers, 1975.
- Passow, A. H. The gifted and the disadvantaged. *The National Elementary Principal*, 1972, 51(5), 24-31.
- Pressey, S. L. Concerning the nature and nurture of genius. *Scientific Monthly*, 1955, 81(3), 123-129.
- Rice, J. *The gifted: Developing total talent*. Springfield IL: Charles C Thomas, 1970.
- Silberman, C. E. The city and the Negro. In A. H. Passow, M. Goldberg, & A. J. Tannenbaum (Eds.), *Education of the disadvantaged*. New York: Holt, Rinehart & Winston, 1967.
- Sisk, D. *Proceedings of the First National Conference on the Disadvantaged Gifted*. Ventura CA, March, 1975.
- Stalnaker, J. M. Recognizing and encouraging talent. *American Psychologist*, 1961, 16(8), 513-522.
- Tannenbaum, A. J. A backward and forward glance at the gifted. *The National Elementary Principal*, 1972, 51(5), 14-23.
- Ward, V. S. *Educating the gifted: An axiomatic approach*. Columbus OH: Charles E. Merrill, 1961.
- Witty, P. The teacher of gifted children. In P. Witty (Ed.), *The gifted child*. Boston: D. C. Heath, 1951.
- Wolfe, D. Diversity of talent. *American Psychologist*, 1960, 15(8), 535-545.

5. Summary, Analysis, and Future Directions

Robert Y. Fuchigami

□ This chapter is designed to present a summary and analysis of the various perspectives offered in previous chapters and to provide some ideas and comments on future directions for persons interested in planning school programs for gifted children from unique cultures, geographic environments, and socioeconomic backgrounds. Persons acquainted with the field of the gifted will recognize that much of what has been described in this monograph has been reported elsewhere. However, it should also be quite evident that some of the comments and ideas are new and are designed to stretch the imagination and, hopefully, stimulate new activities in the field.

Baldwin set the stage for various discussions about the gifted with unique needs by identifying key variables associated with her concept of uniqueness. By identifying cultural diversity, geographic isolation, and socioeconomic deprivation she was able to transcend the usual nonproductive, argumentative discussion related to terminology involved in defining the population. In future discussions she may want to expand on her concept of uniqueness by looking at other variables such as recency of immigration, geogenerational differences, and ethnic-racial isolation. While applauding her clever maneuver, the reader is still left with a minor problem in discussing these children and their education since it is awkward to continually refer to them as gifted children associated with cultural diversity, geographic isolation, and socioeconomic deprivation. For convenience reasons alone, I shall use the term *minority gifted* in my discussions with full recognition of the sense of ambiguity this may present for the reader. The minority gifted child is the same person about whom all of the authors are referring in this book.

The second major contribution Baldwin has added to the literature is her diagrammatic conceptualization of the interrelationship of the three variables as they might relate to functional performance of minority gifted children. The diagrammatic representation helps to visually heighten the sense of complexity involved in considering identification and programing procedures for these children.

Baldwin also strongly suggests that we are still at the initial stages of sophistication in learning how to identify and develop appropriate programs for the minority gifted. Recognizing this situation, she has recommended proceeding "with haste yet with caution in accepting proposed schemes and answers to the problem."

While I share Baldwin's concern for proceeding with haste tempered with caution, I also believe we need to clarify our philosophical orientation with reference to the minority gifted. In essence, the key question that remains unanswered is the following: For what purpose are we educating the minority gifted? Do we educate the minority gifted for the betterment of humanity and the human condition or do we educate the minority gifted for his or her own personal development?

At first glance, the issue posed may seem to be a trivial attempt to formulate an issue when one recognizes that both are equally important. However, the preferential orientation held by decision makers toward one or the other will in my estimation enable the minority gifted to progress further in their own development than an equal orientation toward both. Permit me to elaborate on this fine distinction.

If the orientation by a key decision maker leans toward the notion of educating the minority gifted because it will somehow improve the state of humanity then the program for the gifted should probably be oriented toward the development of leadership qualities, assuming that such qualities can be developed. This decision would have direct implications for other decision makers such as minority child locators, assessors, curriculum developers, and evaluators.

On the other hand, if the orientation is toward development of the individual's human potential* then a more eclectic approach might be considered. The identification procedures would be more broad based, programs more diversified, and goals less targeted toward eventual assumption by the minority gifted person of a role model position in society.

The distinction in orientation is critical if we seriously consider the implications of the "trajectory" concept developed by Mercer. If we target toward leadership, do we increase the probability that a minority gifted child will develop more of his or her potential than if we target toward a well rounded

*My reference here is not the gifted with unusual talents--the child prodigy in art or music, etc.--instead, I am referring to the more common cognitive gifted with or without some talent.

gifted individual? What are the implications of teaching toward both targets simultaneously?

Someday it is hoped that our nation will provide all of the necessary resources to enable us to serve all of the gifted with all of the alternative services we can envision. Until that utopian time, I believe we need to target our limited resources. For the minority gifted, the options are many but the real choices are few. Realistically, there are limited federal and state funds to support a handful of projects. Furthermore, there are few school districts across this nation willing to experiment with their own funds to support alternative types of programs and services for the minority gifted. Given these realities, I believe some hard choices have to be made and I suggest that for the minority gifted we put more emphasis on developing leadership potential. I hasten to add that this decision should not diminish our efforts to develop special programs for the highly talented in the creative arts or shift priorities from currently successful ongoing programs. My suggestion is directed toward planners considering new program directions in the education of minority gifted.

The reasons for emphasizing leadership programs for the minority gifted are many and varied. Without elaborating on each, the following reasons are listed:

1. America needs leaders in all aspects of our society.
2. The leadership pool of minority gifted in all fields of endeavor should be greatly expanded to meet current and future needs.
3. Minority children need more minority gifted persons in their own communities in a variety of businesses and professions to serve as positive role models.
4. Minority gifted leaders can serve humanity in general all over the globe in a variety of roles and responsibilities.

IDENTIFICATION AND ASSESSMENT

Identification and assessment of minority gifted children continue to be topics of controversy and interest for many researchers and practitioners in the fields of psychology and education. For discussion purposes, I would like to separate the two topics.

Screening and Identification

After determining the overall goal of the program or services to be provided, the initial major planning decision involves identification and the screening process. If, for example, the general goal is to develop a leadership program for minority gifted, the obvious task in identification would be to determine ways by which potential leaders would be identified.

Bernal, in this monograph and elsewhere, has suggested that key persons in the racial-ethnic community discuss views of giftedness and then develop a list of indicators. This idea can be modified to focus on developing a list of indicators related to leadership. It would be ideal to have such a list developed for each of the various racial-ethnic minority groups since there probably are several different perceptions of leadership attributes among and between such groups.

Once a list of leadership indicators has been agreed on, the search for persons with potential should commence. It is no secret that leadership is constantly being exhibited by individuals in our ghettos, barrios, reservations, Chinatowns, etc. From personal experience, I remember that talent and ability were surfacing even while we were in American concentration camps during World War II. Leadership was continually emerging in the camp schools, church youth groups, scout troops, athletic leagues, and camp talent shows. Leadership was also emerging among the few youth gangs that roamed the camp.

No matter how adverse the conditions might be in a given community there are persons with leadership and talent. Unfortunately, the leadership is not always channeled in socially positive ways. Among the potential hustlers, con men, numbers runners, and drug peddlers, leaders are emerging. Our task should include efforts to locate the gifted among society's potentially negative oriented population as well as the positive.

By now it should be clear that what I am advocating in the search for leadership is strong involvement in the community. The search for leadership potential should include community leaders connected with churches, scout troops, drill teams, dance schools, preschool centers, playgrounds, recreation halls, and native language schools. The search should involve checking names of winners of neighborhood contests, exhibitions, and demonstrations. The search should not only look for winners but those who display special creativity or talent. The list of potential leaders should also include underage children who seem to be competing well with older children. The search should include identification of leaders in community street gangs. Finally, we should not overlook the potential leaders among siblings of successful negative social role models. These successful role models may be found in the street gangs and in our penal system.

Olivero (1977) has suggested some simple ways to identify children with leadership potential. For example, he stated that the easiest way to identify children with leadership potential is to ask parents some simple questions such as: Do they take charge of responsibilities in their daily neighborhood routines? Do older children look to the younger child for directions? Does the child stay on task on complex assignments and work with others for completion of other tasks? Olivero also suggested the use of sociometric techniques with older children. Tagging onto Olivero's idea of asking simple questions, the kinds of questions asked of a dance teacher in identifying the potential leader might include such questions as: Who are the innovators? Who leads and who follows? Who learns quickly and who improvises? Who perseveres and strives for perfection?

We can no longer expect to continue to sit in our schools and attempt to locate minority gifted with our questionable screening instruments, however modified they might be for this population. Traditional methods need to be supplemented with other efforts. While the cost of moving into the community may be great, the loss of developing such potential will be far greater for all of humanity as well as for the minority gifted individuals.

Assessment

Locating or identifying potential leaders is the first part of the two part identification-assessment process. Assessment is basically a confirmation process based on a need to limit the number of individuals eligible for a given program based on fiscal considerations. It is evident from a quick review of the literature that there is considerably more research activity going on in this area of program planning for the minority gifted than in other areas such as curriculum development, teaching strategy, or materials selection and evaluation.

In this book, we have perspectives on the assessment issue from at least five prominent researchers. An analysis of the various chapters reveals a wide spectrum of measurement orientations ranging from Stanley's relatively unquestioning reliance on existing measurement instruments such as the SAT to Mercer's creative attempt to develop a new System of Multicultural Pluralistic Assessment (SOMPA).

The work by Torrance on testing for creativity and efforts by Meeker on testing for various abilities related to Guilford's structure of intellect model represent efforts to develop assessment instruments related to the broadened definition of giftedness. Bernal's contribution in the screening process has already been noted. Baldwin's identification matrix seems to equate a score on a standardized intelligence test with a score on a motivational scale. She may want to reexamine her basis for giving us that questionable impression.

One of the more interesting observations that can be made about assessment activities in this field is the relatively low relationship we are beginning to find among attributes related to various aspects of giftedness. For example, Campbell and associates (1970) reported low and inconsistent relationships between intelligence and leadership. Similar comments may be made relative to the areas of creativity, artistic expression, and psychomotor abilities. Furthermore, there seems to be a growing tendency to connect the testing procedure with programs to develop certain abilities or remediate for certain deficiencies. This questionable process can be described as teaching to the correlates. The danger for minority gifted is that being tested and placed in programs related to such tests whether they are oriented toward developing creativity, SOI specific abilities, specific aptitudes, specific psychomotor skills, and even specific academic abilities may tend to limit growth opportunities in other areas of giftedness. While I am not advocating abolishment of tests or even a moratorium on testing,

I believe it is time to reconsider the role of testing in the realm of education for minority gifted children and deemphasize its importance until more appropriate instruments are developed and refined.

As a substitute for the testing process which is basically one of determining who qualifies for a given program, I suggest a three level performance observation process for minority gifted. Students identified in the screening process would automatically move into Level 1 programs for a probationary observation period. Students needing certain remediation based on observation of performances in Level 1 would move into Level 2 programs for a second observation period. Students who exhibit difficulty in Level 2 programs would be moved to Level 3 programs where the focus would be on attempting to determine why a given student is displaying leadership traits in the community and not in school. The process described would be basically intended to continue inclusion of the minority gifted in one of the three programs. Testing in the usual sense with standardized instruments would occur only after the minority gifted had ample time to adjust to the new program. Furthermore, poor performance on the tests would not be used to dismiss pupils from the program. On the contrary, poor test performance would serve as a signal to alert teachers to make a special effort to attempt to identify reasons for the discrepancy between successful performance in the community and less successful results in testing situations.

In summary, it is fairly evident that there is still considerable uncertainty about which instruments and what procedures are most appropriate for measuring the abilities and potential of minority gifted children. In the interim, an alternative to the testing process is being suggested which radically deemphasizes the role of testing in the educational system.

CURRICULUM AND METHODS

In the chapter on curriculum and methods, Baldwin suggested a familiar set of items deemed necessary for a quality program for the gifted. Such things include proper identification and diagnosis, enriching activities using a variety of teaching strategies, a curriculum with parameters for instructional decisions, and a gifted teacher. Next, Baldwin proceeded to identify and discuss essential components of the curriculum/instructional system. She concluded the chapter with a discussion of some pupil characteristics or descriptors that could be utilized in planning programs for the minority gifted.

Baldwin's conceptualization of curriculum and strategies is similar to those of other test oriented researchers who emphasize the now familiar pattern of testing for student strengths and weaknesses, defining goals and objectives, planning strategies to meet those goals, and having an evaluation component to measure degree of success in attaining those goals. She can be praised for her attempt to include reference to all major contributors to curriculum design for the gifted and applauded for her suggestion that planning capitalizes on strengths

of the child and for her emphasis on a continuous supply of environmental stimuli for the minority gifted.

What I find disconcerting in Baldwin's chapter is her tendency to assume that the reader can somehow reconcile, without assistance from the writer, apparent differences in the curriculum and strategy approaches proposed by followers of Bloom, Guilford, Williams, Renzulli, and others. What is needed is an overall framework for education of minority gifted that carefully ties various theoretical positions together into a comprehensive whole. If certain approaches do not fit in their entirety, perhaps parts can be extrapolated. In any case, we do not seem to have such a framework at this time and consequently tend to include everything and everybody in our discussions which can only lead to confusion and a sense of frustration for both planners and practitioners.

In proposing a leadership framework, I am suggesting one that particularly meets the needs of both the minority gifted and society in general. It is my belief that a kindergarten through 12th grade curriculum can be developed with a leadership orientation that will be superior to any curriculum currently available to minority gifted children.

The idea of leadership training for the gifted is not new. In 1974, a team of members from the Los Angeles City Schools developed plans for a project to establish selection criteria and program prototypes to meet the needs of unserved gifted with talent in leadership. A comprehensive survey of literature related to the issue was published (Los Angeles City Unified School District, 1976). The survey cited a number of persons emphasizing that leadership could be taught. Furthermore, the survey reported evidence that leadership could be taught and developed among persons of average or above average intelligence.

In addition to the Los Angeles survey cited, a small but growing number of activities and projects related to leadership have been reported in the literature during the past few years; Whitmore (1973) reported on a project involving student leadership development in low income elementary schools. James Olivéro, Director of the Nueva Learning Center, Joelcira Cavedon of the Center for Creative Leadership, and Seymour Spiegel, Director of Malcolm X Shabazz High Schools' School Within a School program reported on their programs in a recent publication by the National/State Leadership Training Institute on the Gifted and Talented (1977).

Some ongoing or recently completed programs and projects related to leadership would include the programs for gifted children in Yakima, Washington, and Boston, Massachusetts. Brief descriptions of these programs are in the *Guide to Programs Funded by the Office for Gifted and Talented, Fiscal Years 1976-78* (The Council for Exceptional Children, 1978).

In summary, programs related to leadership training are emerging in various forms and in widely scattered locations throughout the nation. Unfortunately, few are directed toward work with the minority gifted and none are conceptual-

ized in terms of a comprehensive and longitudinal approach to leadership development.

What is needed is a kindergarten through 12th grade curriculum that enables minority gifted children to develop those skills and personality traits necessary for leadership. The skills would include learning information processing requirements such as reading, writing, oral communication, critical and analytical thinking, and problem solving techniques within a leadership framework. Personality traits of a leader to be developed would include those identified by Stogdill (1974) after an extensive survey of the literature:

... strong drive for responsibility and task completion, vigor and persistence in pursuit of goals, venturesomeness and originality in problem solving, drive to exercise initiative in social situations, self confidence and sense of personal identity, willingness to absorb interpersonal stress, willingness to tolerate frustration and delay, ability to influence other person's behavior, and capacity to structure social interaction systems to the purpose at hand. (p. 81)

In addition to developing skills and personality traits, the curriculum should enable minority gifted to acquire knowledge that will enable them to provide leadership to both dominant and minority communities. The knowledge would include comprehensive information about the social, economic, and political system, role of change agents, and specific information about how individuals can work within the system to create necessary change in the system itself.

The leadership curriculum would probably utilize a problems and issues oriented unit approach rather than a subject centered curriculum approach. The curriculum would spiral out from immediate issues related to self, neighborhood, school, and community to regional, state, national and international issues as children matured in functional and psychosocial ability.

Teachers with a leadership orientation would organize activities related to the development of those skills, traits, and knowledge at levels appropriate to different maturational levels building on previous experiences. Activities would not be randomly selected but would be carefully sifted from a variety of options to serve the sole purpose of developing leadership traits, skills, or essential knowledge. Special sessions of varying duration could be developed to provide remediation, enhancement, enrichment, and exploration whenever necessary for individuals or small groups.

It is not my intent to outline in detail such a curriculum at this time. What I am emphasizing is the need for such a curriculum for the minority gifted utilizing the brief suggestions noted as a starting point for developing a leadership curriculum. As one gets into the details of developing a leadership curriculum, it is relatively easy to see how parts of the SOI model, Bloom's Taxonomy, Williams' Model for Teaching, and Baldwin's Webbing Strategy can be utilized by the program planner. An excellent starting point toward developing

a leadership curriculum would be to examine the program for the gifted at St. Charles, Illinois (Ellis & Ratner, 1976). While the focus of this program is on development of SOI abilities, the idea of utilizing an overall framework or model for curriculum decisions is clearly evident. Furthermore, the ultimate goal of developing decision makers is closely related to the goal of developing leaders. Another excellent resource is the curriculum text by Michaelis and associates (1975).

COMMUNITY INVOLVEMENT AND PROGRAM DEVELOPMENT

In her chapter on the community and its schools, Gear identified three factors critical to the successful implementation of programs for the gifted: community awareness and participation, inservice training of regular school personnel, and unique involvement by the program coordinator and school counselor. She also identified certain forces that could hinder the development of talent. Such forces would include poverty of stimulation in the school program, lack of money for college, the talent will manifest itself attitude, and little encouragement from the family.

Gear correctly observed that every community offers a rich heritage historically, culturally, and economically. Furthermore, she noted that there are persons in all communities no matter how "disadvantaged," who are striving to improve their community. The task for program planners is to identify those resources in the community that might be utilized in the program and organize the persons interested in community improvement into a positive action group for the gifted. Fortunately, Gear provided some excellent leads on how the planners could involve the community in all phases of program development.

In discussing key individuals associated with programs for the gifted, Gear identified the classroom teacher, the special education teacher/coordinator, and the school counselor. While these persons are all essential to a successful program, I believe that the most important individual is the district superintendent. The superintendent controls the fiscal resources and sets the priorities. It would be a rare program that could succeed without the strong support and involvement of the superintendent. Recognizing the power and pivotal role played by the person in the decision making process, it is imperative that program planners include the superintendent in all basic phases of program development.

Finally with regard to the planning process, Gear outlined a familiar needs assessment approach. I would simply add as a new direction that the planning be directed toward the development of a kindergarten through 12th grade leadership training program.

FUTURE DIRECTIONS

As we consider future directions and activities for the gifted, it is important to recognize the cyclical nature of the nation's interest in this unique popula-

tion. Currently there seems to be an increase in interest. Correspondingly, it allows us special opportunities for exploring new directions. While I recognize that funds are limited for exploration and experimentation in this area as in so many others, I also believe that there are some private groups and individuals interested in this unique population who will support imaginative programs and activities properly presented.

At this time, I would like to offer 12 program or activity ideas that might capture the imagination of some public funding or private funding source. These 12 are in addition to the idea of a leadership curriculum previously mentioned. Consider the following:

1. Regional schools or programs that enable gifted to transcend traditional school district boundaries. This idea could involve a variety of possibilities within and between districts, cities, counties, states, regions, and even nations.
2. Year round educational programs involving special sessions at different locations.
3. Special talent and leadership camps. Depending on location some could be operated on a year round basis and others on a seasonal basis. Gifted pupils would attend for varying lengths of time.
4. Special educational travel-study programs to locations like the Smithsonian Institution, National Aeronautics and Space Administration facilities, marine laboratories and so forth, operated by both public and private organizations, agencies, and industries.
5. Short term and part time work-study internships with private industrial and business firms, public agencies, and foundation supported programs.
6. Short term student exchange programs within the state, region, and nation. The exchanges could mean opportunities to move from urban to suburban or rural settings and vice versa.
7. Criss cross national "walkabout" type programs whereby students could drop off for varying lengths of time to stay at hostel type homes and sample unique educational experiences in specialized centers of learning.
8. Special cultural heritage programs for minority gifted so they can learn about their roots through a variety of activities and opportunities.
9. Establishment of regional or national universities or educational learning institutes especially planned and staffed for genius or extremely high level gifted. These rare children are potential human treasures unique to humanity and should receive very special development opportunities for their talents and abilities. Such centers might also become available for children from other countries if provisions for their families could also be included.
10. Special family programs and options that include all members of the family. The minority gifted from economically poor environments need special consideration by program planners to minimize concerns related to potential

conflict and alienation in family relationships (Grier & Cobbs, 1968). Alternatives for family programs should range from simple inclusion of specially trained family caseworker/counselors to something as radical as family relocation options involving public or private employment for all working members of the family.

11. Special schools. At a time when busing children is widely practiced, the gifted could be easily transported to special schools without the usual problems accompanying such practices.
12. Short term boarding schools whereby students return home on weekends and holidays.

While it is hoped that the nation's interest in the area of gifted education will continue to grow, past experiences have taught us that support for any area of education has been unpredictable. For minority gifted children, the needs have long been recognized. Unfortunately, programs to meet those needs have not been fully established. Perhaps the problem arose because we became preoccupied with identification procedures. Perhaps it was because we became immobilized by differences in definition. In any case, it is time to move on. The minority gifted need programs, activities, and opportunities more than additional studies on identification procedures or discussions on labels. In essence, now is the time for programs. Now is the time to move in new directions.

Sir George Porter, President of the British National Association for Gifted Children, speaking at the first World Conference on Gifted Children said: "The gifted children of today are the leaders of tomorrow—in the sciences, the arts, the learned professions, and commerce. They are a precious asset which no country can afford to waste." America is no exception. While we have started to meet the needs of some of our gifted children, our minority gifted continue to be our most hidden and neglected asset. As a nation, we must not continue to ignore the needs of this unique population.

REFERENCES

- Campbell, J. P., Dunnette, M.D., Lawler, E.E., & Weick, K.E. *Managerial behavior, performances and effectiveness* New York: McGraw-Hill, 1970.
- The Council for Exceptional Children. *Guide to programs funded by the Office for Gifted and Talented*. Reston VA: Author, 1978.
- Ellis, A.S., & Ratner, R. *Decision making man*. St. Charles IL: Aron Communications, 1976.
- Los Angeles City Unified School District, Instructional Planning Division, Programs for Gifted. *Leadership: A survey of literature*. Los Angeles: Author, 1976.

- Michaelis, J., Grossman, R. H., & Scott, L.F. *New designs for elementary curriculum and instruction*. New York: McGraw-Hill, 1975.
- A new generation of leadership*. National/State Leadership Training Institute on the Gifted and Talented. Brief Number 4.
- Olivero, J. L. Leading leaders. In *A new generation of leadership*. N/SLTI, Brief Number 4.
- Stogdill, R.M. *Handbook of leadership: A survey of theory and research*. New York: The Free Press, 1974.
- Whitmore, J.R. *Student leadership: Guidelines for developing programs in distressed low income elementary schools*. Research and Development Memorandum No. 113, Stanford Center for Research and Development in Teaching, Stanford University, 1973.